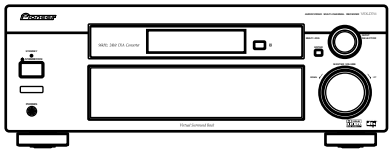
Pioneer *sound.vision.soul*

Service Manual



ORDER NO.
RRV2586

AUDIO/VIDEO MULTI-CHANNEL RECEIVER

VSX-D711

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	Remarks
	VSX-D711		
KUXJI	◯	AC120V	
KCXJI	◯	AC120V	

For details, refer to "Important symbols for good services" on page 3.

PIONEER CORPORATION 4-1, Meguro 1-chome, Meguro-ku, Tokyo 153-8654, Japan
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T – ZZV FEB. 2002 Printed in Japan

SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

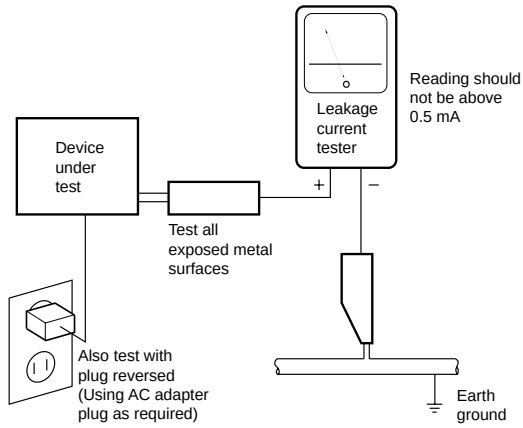
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.


Reading should not be above 0.5 mA
Leakage current tester
Device under test
+
–
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

[Important symbols for good services]
In this manual, the symbols shown-below indicate that adjustments, settings or cleaning should be made securely.
When you find the procedures bearing any of the symbols, be sure to fulfill them:

1. Product safety

You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

2. Adjustments

To keep the original performances of the product, optimum adjustments or specification confirmation is indispensable. In accordance with the procedures or instructions described in this manual, adjustments should be performed.

3. Cleaning

For optical pickups, tape-deck heads, lenses and mirrors used in projection monitors, and other parts requiring cleaning, proper cleaning should be performed to restore their performances.

4. Shipping mode and shipping screws

To protect the product from damages or failures that may be caused during transit, the shipping mode should be set or the shipping screws should be installed before shipping out in accordance with this manual, if necessary.

5. Lubricants, glues, and replacement parts

Appropriately applying grease or glue can maintain the product performances. But improper lubrication or applying glue may lead to failures or troubles in the product. By following the instructions in this manual, be sure to apply the prescribed grease or glue to proper portions by the appropriate amount.For replacement parts or tools, the prescribed ones should be used.

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1. SPECIFICATIONS

Amplifier Section

Continuous average power output of 100 watts* per channel, min., at 8 ohms, from 20 Hz to 20,000 Hz with no more than 0.2 %** total harmonic distortion (front).

Continuous Power Output
Front ..... 100 W per channel (1kHz, 1.0 %, 8 Ω)
Center ..... 100 W (1kHz, 1.0 %, 8 Ω)
Surround ..... 100 W per channel (1kHz, 1.0 %, 8 Ω)

Input (Sensitivity/Impedance)
CD, VCR/DVR, CD-R/TAPE/MD, DVD/LD, TV/SAT ... 200 mV/47 kΩ

Frequency Response
CD, VCR/DVR, CD-R/TAPE/MD, DVD/LD,TV/SAT
..... 5 Hz to 100,000 Hz $^{+0}_{-3}$dB

Output (Level/Impedance)
VCR/DVR REC, CD-R/TAPE/MD REC ..... 200 mV/2.2 kΩ

Tone Control
BASS ..... ± 6 dB (100 Hz)
TREBLE ..... ± 6 dB (10 kHz)
LOUDNESS ..... +9 dB/+9 dB (100 Hz/10 kHz)

Signal-to-Noise Ratio (IHF, short circuited, A network)
CD, VCR/DVR, CD-R/TAPE/MD,DVD/LD, TV/SAT ..... 96 dB

Signal-to Noise Ratio [EIA, at 1 W (1 kHz)]
CD, VCR/DVR, CD-R/TAPE/MD,DVD/LD, TV/SAT ..... 79 dB

Video Section

Input (Sensitivity/Impedance)
VCR/DVR, DVD/LD, TV/SAT ..... 1 Vp-p/75 Ω

Output (Level/Impedance)
VCR/DVR ..... 1 Vp-p/75 Ω

Frequency Response
VCR/DVR, DVD/LD,TV/SAT ⇨ MONITOR ..... 5 Hz to 7 MHz dB
Signal-to-Noise Ratio ..... 55 dB
Cross Talk ..... 55 dB

Manufactured under license from Dolby Laboratories. “Dolby”, “Pro Logic II” and the double D symbol ◻◻ are trademarks of Dolby Laboratorories

"DTS" ,“ES” and "DTS Digital Surround" are trademarks of Digital Theater Systems, Inc.

FM Tuner Section

Frequency Range ..... 87.5 MHz to 108 MHz
Usable Sensitivity ..... Mono:13.2 dBf, IHF (1.3 µV/ 75 Ω)
50 dB Quieting Sensitivity ..... Mono: 20.2 dB
Stereo: 38.6 dBf
Signal-to-Noise Ratio ..... Mono: 73 dB (at 85 dBf)
Stereo: 70 dB (at 85 dBf)
Distortion ..... Stereo: 0.5 % (1 kHz)
Alternate Channel Selectivity ..... 60 dB (400 $^{+0}_{-}$kHz)
Stereo Separation ..... 40 dB (1 kHz)
Frequency Response ..... 30 Hz to 15 kHz (±1 dB)
Antenna Input (DIN) ..... 75 Ω unbalanced

AM Tuner Section

Frequency Range ..... 530 kHz to 1,700 kHz
Sensitivity (IHF, Loop antenna) ..... 350 µV/m
Selectivity ..... 25 dB
Signal-to-Noise Ratio ..... 50 dB
Antenna ..... Loop antenna

Miscellaneous

Power Requirements ..... AC 120 V, 60Hz
Power Consumption ..... 260W, 340 VA
In Standby ..... 1 W
AC Outlet ..... 100 W MAX. (SWITCHED)
Dimensions ..... 420 (W) x 158 (H) x 401 (D) mm
(16-9/16 (W) x 6-4/16 (H) x 15-6/16 (D) in.)
Weight (without package) ..... 9.0 kg
(19.8 lb)

Furnished Parts
AM loop antenna 1
FM wire antenna 1
Dry cell batteries (AA size IEC R6P) 2
Remote control 1
Operating instructions (KUXJI type) 1
Operating instructions (KCXJI type) 2

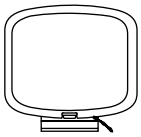
Note

Specifications and the design are subject to possible modifications without notice, due to improvements.

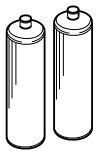
* Measured pursuant to the Federal Trade Commission’s Trade Regulation rule on Power Output Claims for Amplifiers.

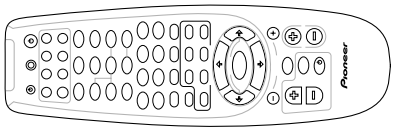
** Measured by Audio Spectrum Analyzer.

Accessories


AM loop antenna
(ATB7009)

FM wire antenna
(ADH7004)


AA size IEC R6P
Dry cell batteries (x2)

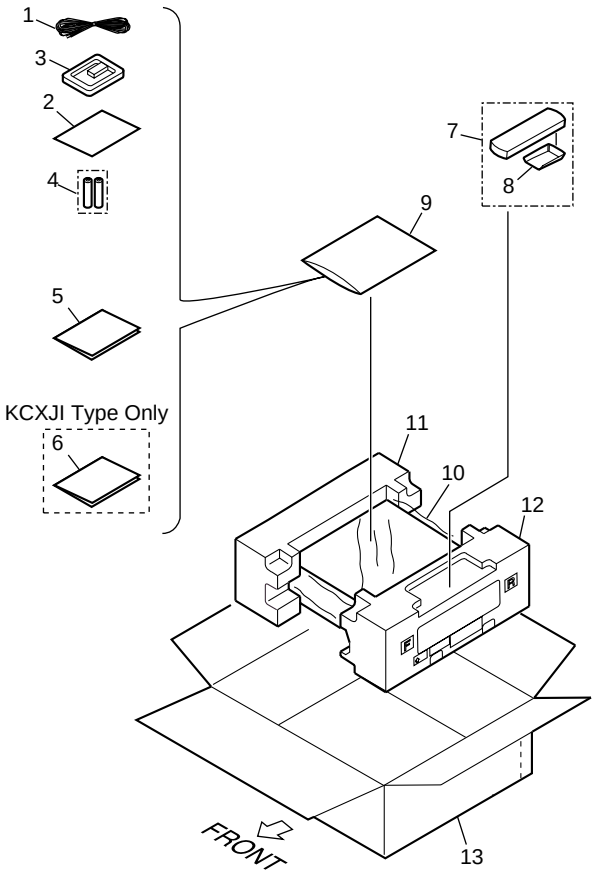


Remote control unit
(XXD3041)

2. EXPLODED VIEWS AND PARTS LIST

NOTES: ● *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
● *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
● *Screws adjacent to ▼ mark on the product are used for disassembly.*

2.1 PACKING



(1) PACKING PARTS LIST

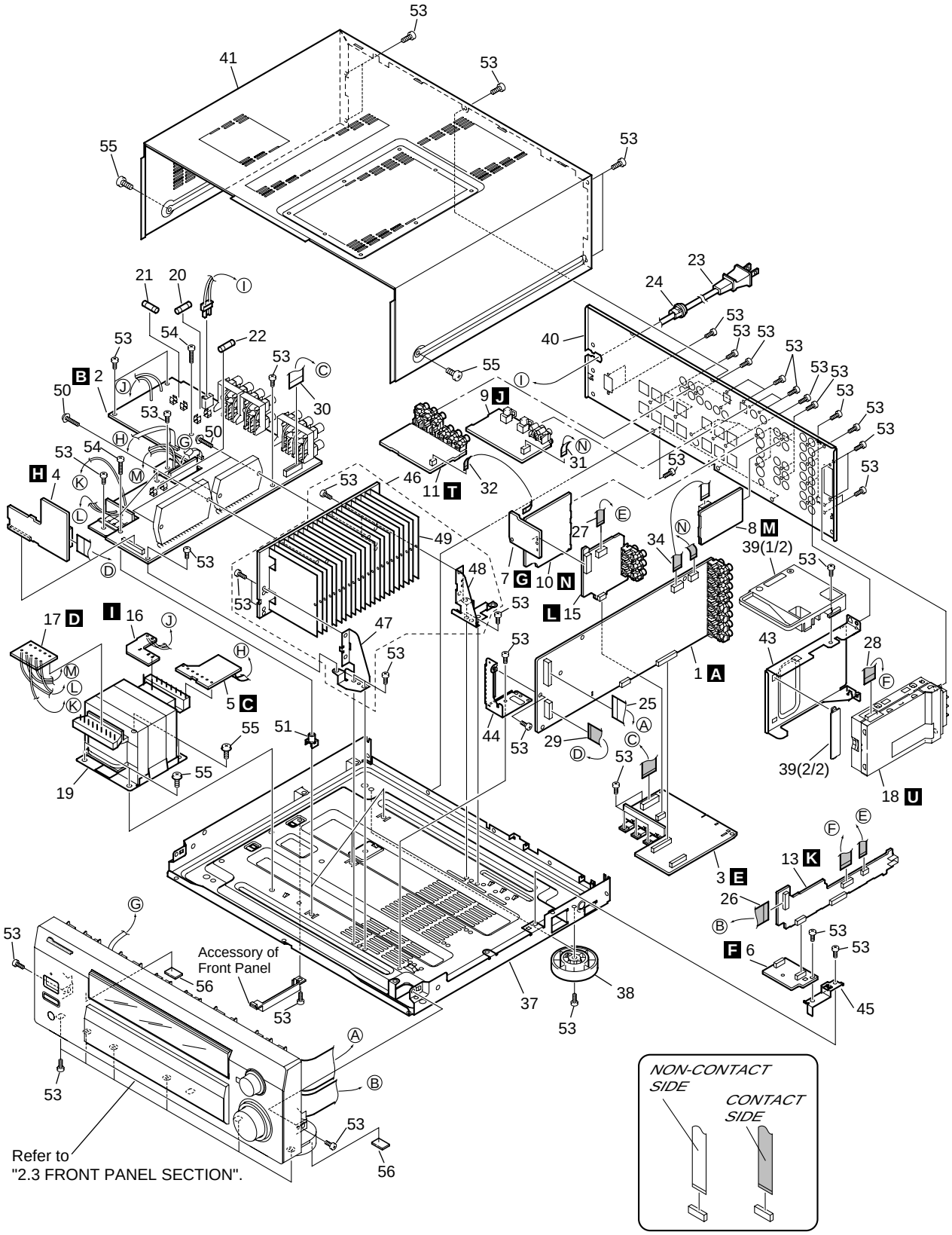
Mark	No.	Description	Part No.
	1	FM Wire Antenna	ADH7004
NSP	2	Warranty Card	ARY7045
	3	AM Loop Antenna	ATB7009
NSP	4	Dry Cell Batteries(AA/R6P)	VEM-013
	5	Operating Instructions (English)	XRB3013
	6	Operating Instructions (French)	See Contrast table (2)
	7	Remote Control	XXD3041
	8	Battery Cover	XZA3002
NSP	9	Polyethylene Bag	Z21-038
	10	Packing Sheet	AHG7069
	11	Left Pad R5	XHA3032
	12	Right Pad R5	XHA3033
	13	Packing Case	XHD3201

(2) CONTRAST TABLE

VSX-D711/KUXJI and KCXJI are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.		Remarks
			VSX-D711 /KUXJI	VSX-D711 /KCXJI	
	6	Operating Instructions (French)	Not used	XRC3057	

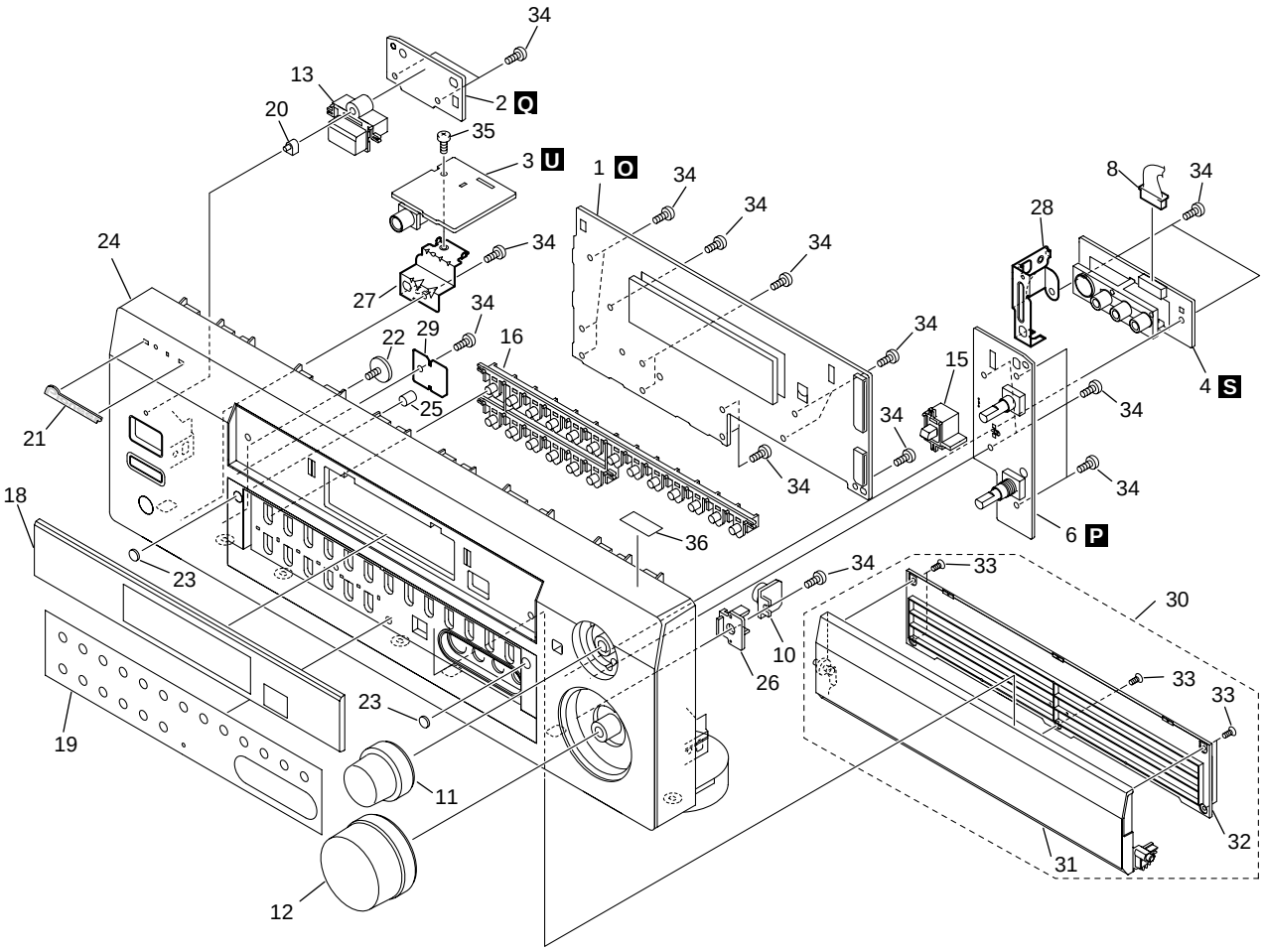
2.2 EXTERIOR


Accessory of Front Panel
Refer to "2.3 FRONT PANEL SECTION".
NON-CONTACT SIDE
CONTACT SIDE

● EXTERIOR PARTS LIST

Mark	No.	Description	Part No.
	1	D.D & INPUT ASSY	XWX3047
	2	AMP&PRIMARY ASSY	XWZ3536
	3	REGULATOR ASSY	XWZ3545
	4	AMP INPUT ASSY	XWZ3549
	5	TRANS2 ASSY	XWZ3557
	6	HASHIGETA ASSY	XWZ3567
	7	BOARD TO BOARD ASSY	XWZ3528
	8	6CH IN ASSY	XWZ3507
	9	DIGITAL IN ASSY	XWZ3518
	10	S. VIDEO ASSY	XWZ3522
	11	COMPONENT ASSY	XWZ3524
	12	• • • • •	
	13	KAWA ASSY	XWZ3529
	14	• • • • •	
	15	VIDEO ASSY	XWZ3583
NSP	16	TRANS1 ASSY	XWZ3553
NSP	17	TRANS3 ASSY	XWZ3561
	18	FM/AM TUNER MODULE	AXQ7231
⚠	19	Power Transformer (T1)	XTS3058
⚠	20	FU1(10A/250V)	REK1087
⚠	21	FU2(8A/125V)	REK1086
⚠	22	FU701	REK1087
⚠	23	AC Power Cord	ADG7024
	24	Cord Stopper	CM-22C
	25	28P F•F•C/30V (J31) (DD&INPUT CN102 – FRONT CN402)	XDD3097
	26	17P F•F•C/30V (J32) (KAWA CN5001 – FRONT CN401)	XDD3098
	27	7P F•F•C/30V (J33) (KAWA CN5004 – VIDEO CN503)	XDD3099
	28	13P F•F•C/30V (J34) (KAWA CN5005 – FM/AM TUNER CN201)	XDD3100
	29	19P F•F•C/30V (J35) (DD&INPUT CN106 – AMP INPUT CN254)	XDD3101
	30	23P F•F•C/30V (J36) (AMP&PRIMARY CN53 – REGULATOR CN801)	XDD3102
	31	7P F•F•C/30V (J37) (DD&INPUT CN9101 – DIGITAL IN CN1901)	XDD3103
	32	5P F•F•C/30V (J38) (BOARD TO BOARD CN392 – COMPONENT CN5501)	XDD3104
	33	• • • • •	
	34	9P F•F•C/30V (J48) (DD&INPUT CN104 – 6CH IN CN307)	XDD3106
	35	• • • • •	
	36	• • • • •	
NSP	37	Under Base 409	ANA7094
	38	Insulator	AMR7198
	39	FFC Cover R5	XMR3047
	40	Rear Panel	XNC3140
	41	Bonnet D510	XZN3112
	42	• • • • •	
	43	Tuner Shield R5	XNG3072
	44	PCB Angle R5	XNG3073
	45	Reg Support R5	XNG3074
NSP	46	Heat Sink Assy 0.4*40	ANH7112
	47	Heat Sink Angle F	ANG7251
	48	Heat Sink Angle R	ANG7252
NSP	49	Heat Sink	ANH7109
	50	Screw 3x23	ABA7043
	51	PCB Mold	AMR2533
	52	• • • • •	
	53	Screw	BBZ30P080FMC
	54	Screw	BBZ30P200FMC
	55	Screw	FBT40P080FZK
	56	Rubber Sheet	AEB1111

2.3 FRONT PANEL

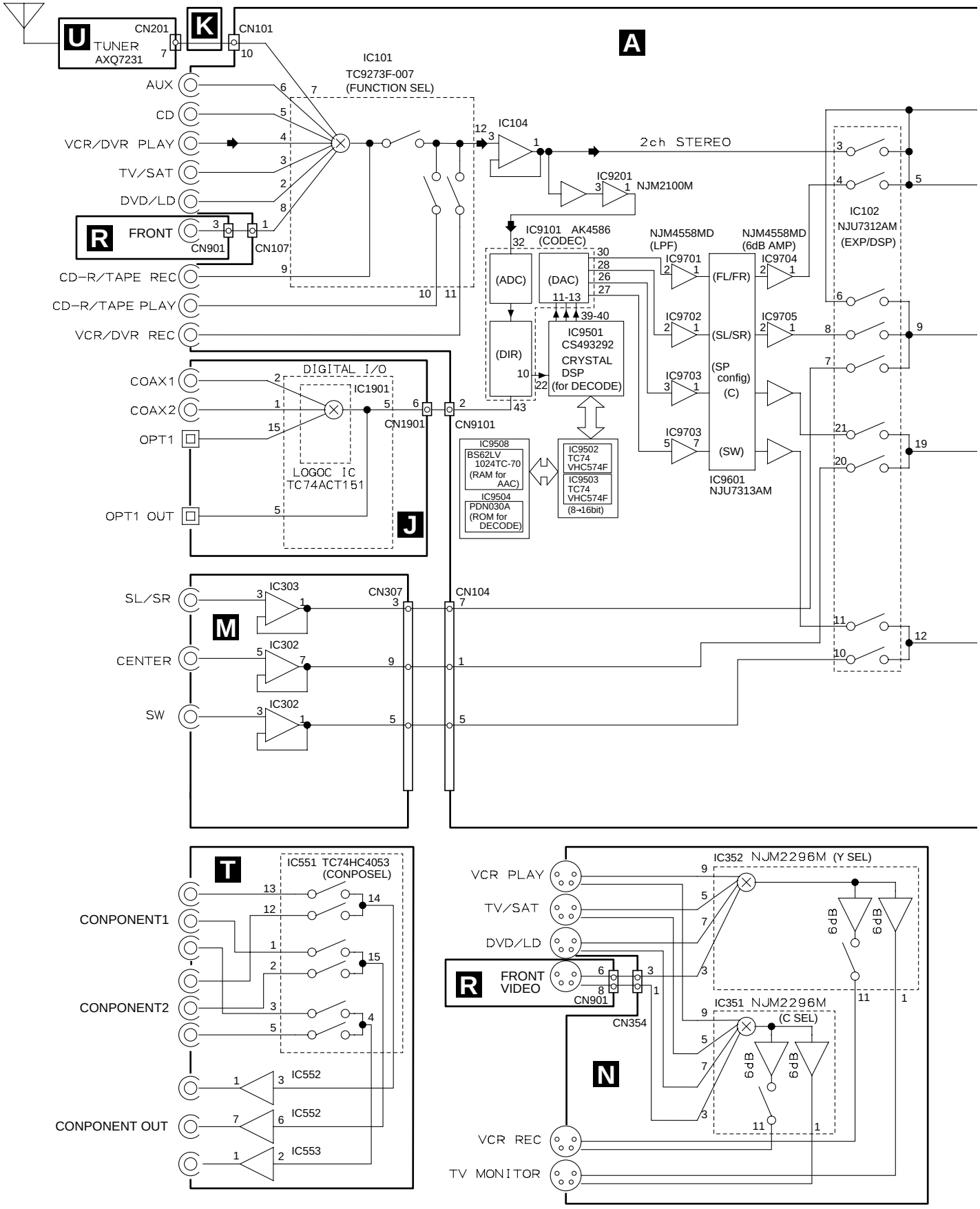


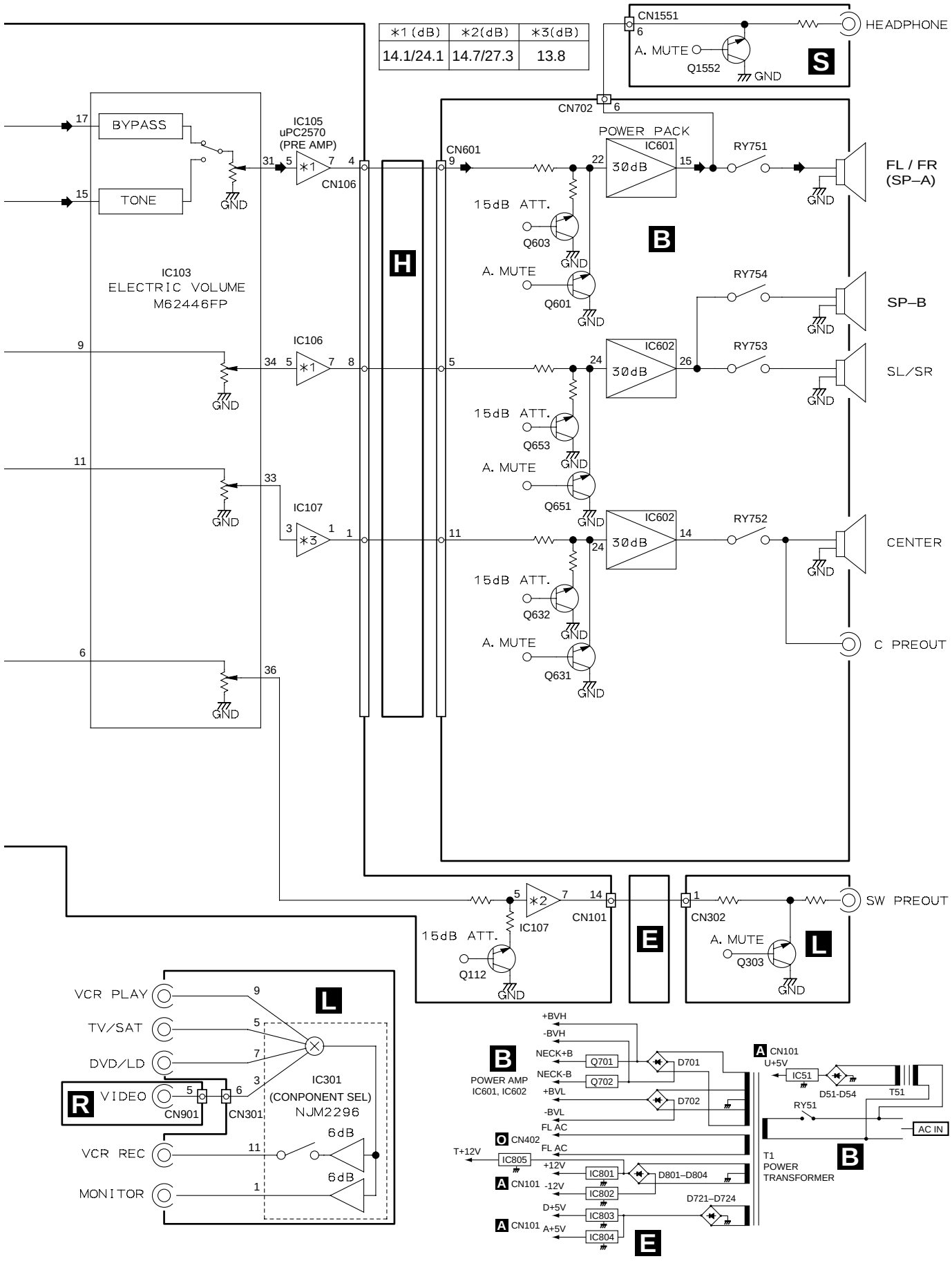
● FRONT PANEL PARTS LIST

Mark	No.	Description	Part No.
	1	FRONT ASSY	XWZ3497
	2	POWER SW ASSY	XWZ3510
	3	H.P. ASSY	XWZ3513
	4	FRONT VIDEO ASSY	XWZ3515
	5	• • • • •	
	6	R. ENCODER ASSY	XWZ3511
	7	• • • • •	
NSP	8	8P Shielded Cable (J29)	XDX3012
	9	• • • • •	
	10	Damper Assy	AXA7052
	11	Select Knob R5BH	XAB3023
	12	Volume Knob R5BH	XAB3025
	13	Power Button R5B	XAD3123
	14	• • • • •	
	15	Jog Button R5B	XAD3124
	16	Door Button R5B	XAD3126
	17	• • • • •	
	18	D Panel R5 W	XAK3274
	19	BN Cover 711B/UL	XAK3293
	20	Led Lens 1.6	XAK3308
	21	Pioneer Badge B	XAM3006
	22	Screw DR 3x8W	XBA3010
	23	Cushion R4B	XED3001
	24	Front Panel	XMB3062
	25	Magnet R5	XMF3002
	26	Holder L R5	XMR3046
NSP	27	Earth Plate R5 HP	XNG3066
NSP	28	Earth Plate R5 D	XNG3067
	29	Magnet Cover R5	XNG3075
	30	Door Assy R5B	XXG3091
NSP	31	Door R5B	XAK3275
NSP	32	Door Cover R5B	XAK3276
NSP	33	Screw 2x35 B	XBA3007
	34	Screw	PPZ30P080FMC
	35	Screw	BBZ30P080FMC
NSP	36	Energy Star Label	AAX7876

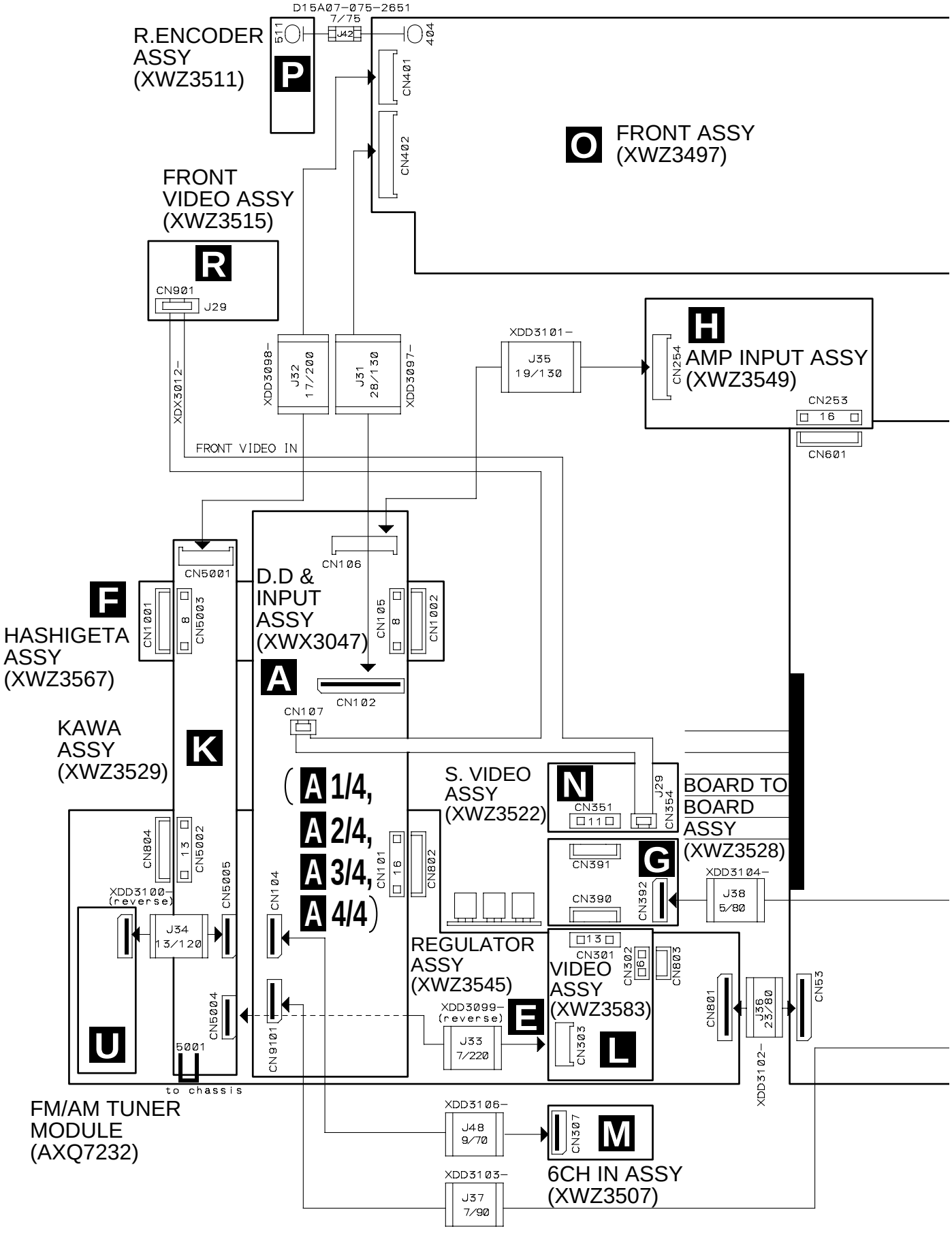
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 BLOCK DIAGRAM

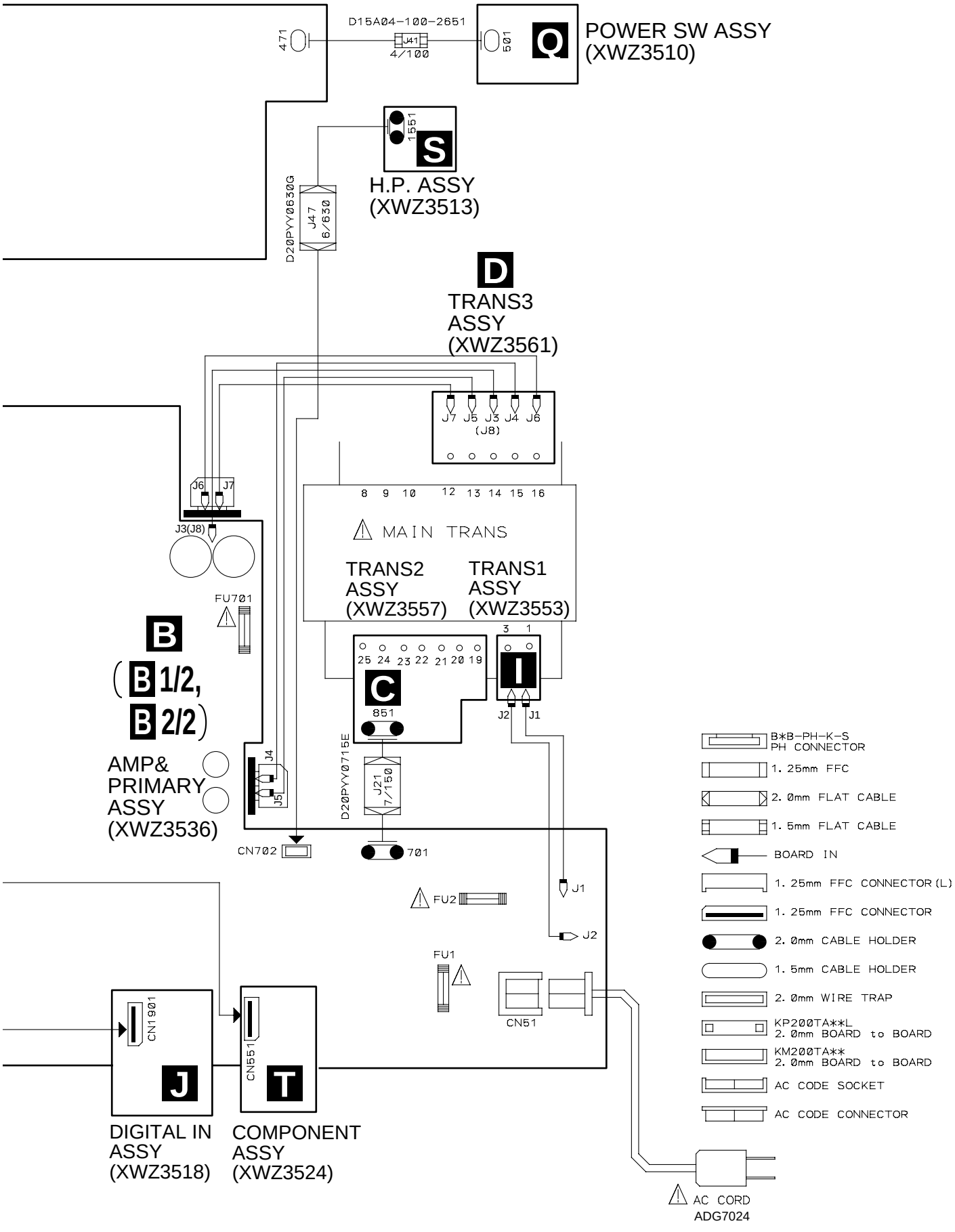



∗1 (dB) ∗2(dB) ∗3(dB)
14.1/24.1 14.7/27.3 13.8
CN1551
HEADPHONE
A. MUTE
Q1552
GND
S
CN702
POWER PACK
IC601
30dB
RY751
FL / FR
(SP–A)
BYPASS
TONE
IC105
uPC2570
(PRE AMP)
CN106
CN601
15dB ATT.
Q603
A. MUTE
Q601
B
H
IC103
ELECTRIC VOLUME
M62446FP
IC106
IC602
RY754
SP–B
RY753
SL/SR
Q653
Q651
IC107
RY752
CENTER
Q632
Q631
C PREOUT
SW PREOUT
CN101
CN302
Q112
Q303
E
L
VCR PLAY
TV/SAT
DVD/LD
VIDEO
CN901
CN301
IC301
(CONPONENT SEL)
NJM2296
6dB
VCR REC
MONITOR
R
POWER AMP
IC601, IC602
NECK+B
NECK-B
+BVL
-BVL
Q701
Q702
D701
D702
FL AC
CN402
T+12V
IC805
+12V
-12V
IC801
IC802
D801–D804
D+5V
A+5V
IC803
IC804
D721–D724
CN101
U+5V
IC51
D51-D54
T51
RY51
AC IN
T1
POWER
TRANSFORMER

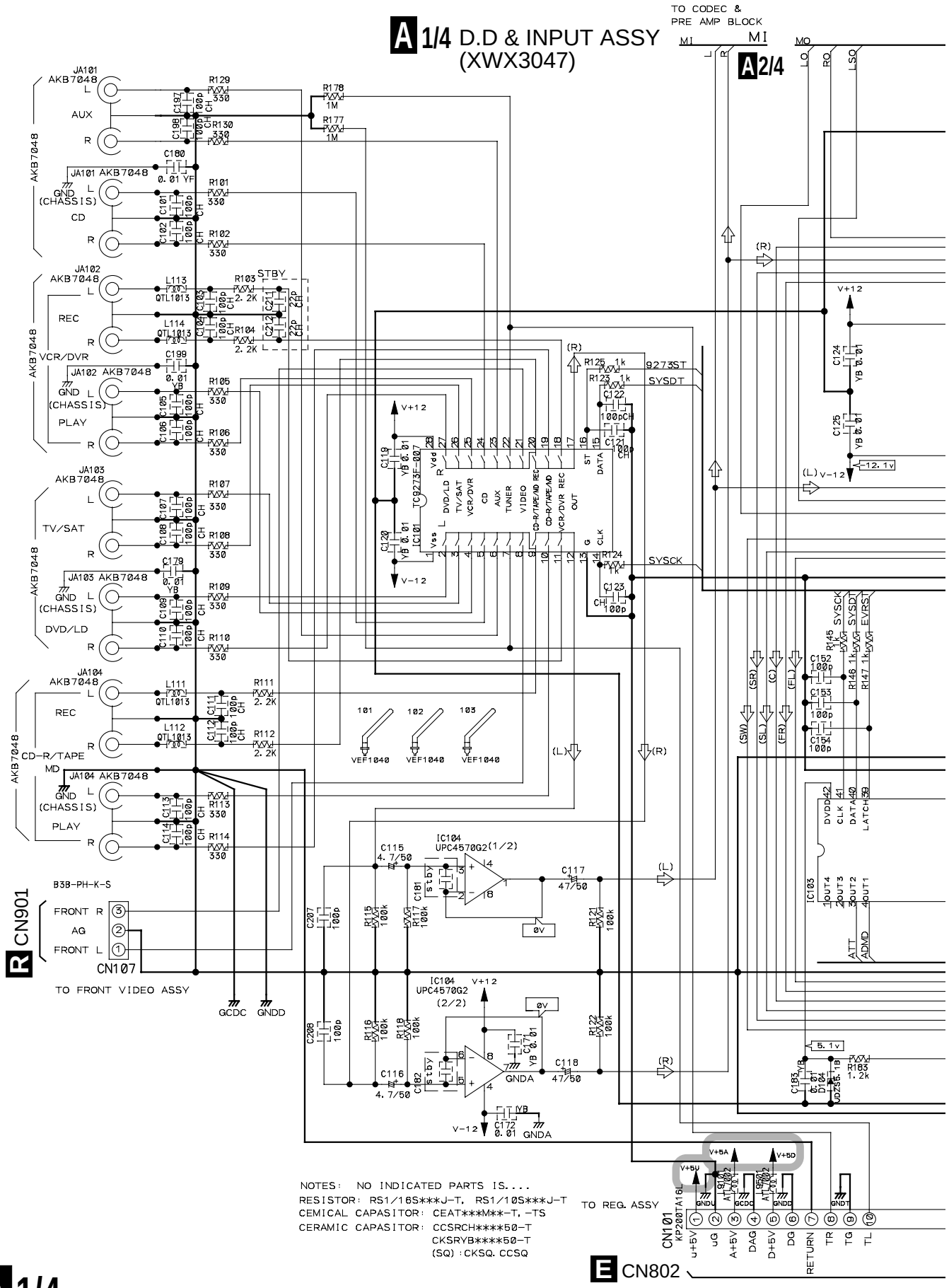
3.2 OVERALL WIRING CONNECTION DIAGRAM



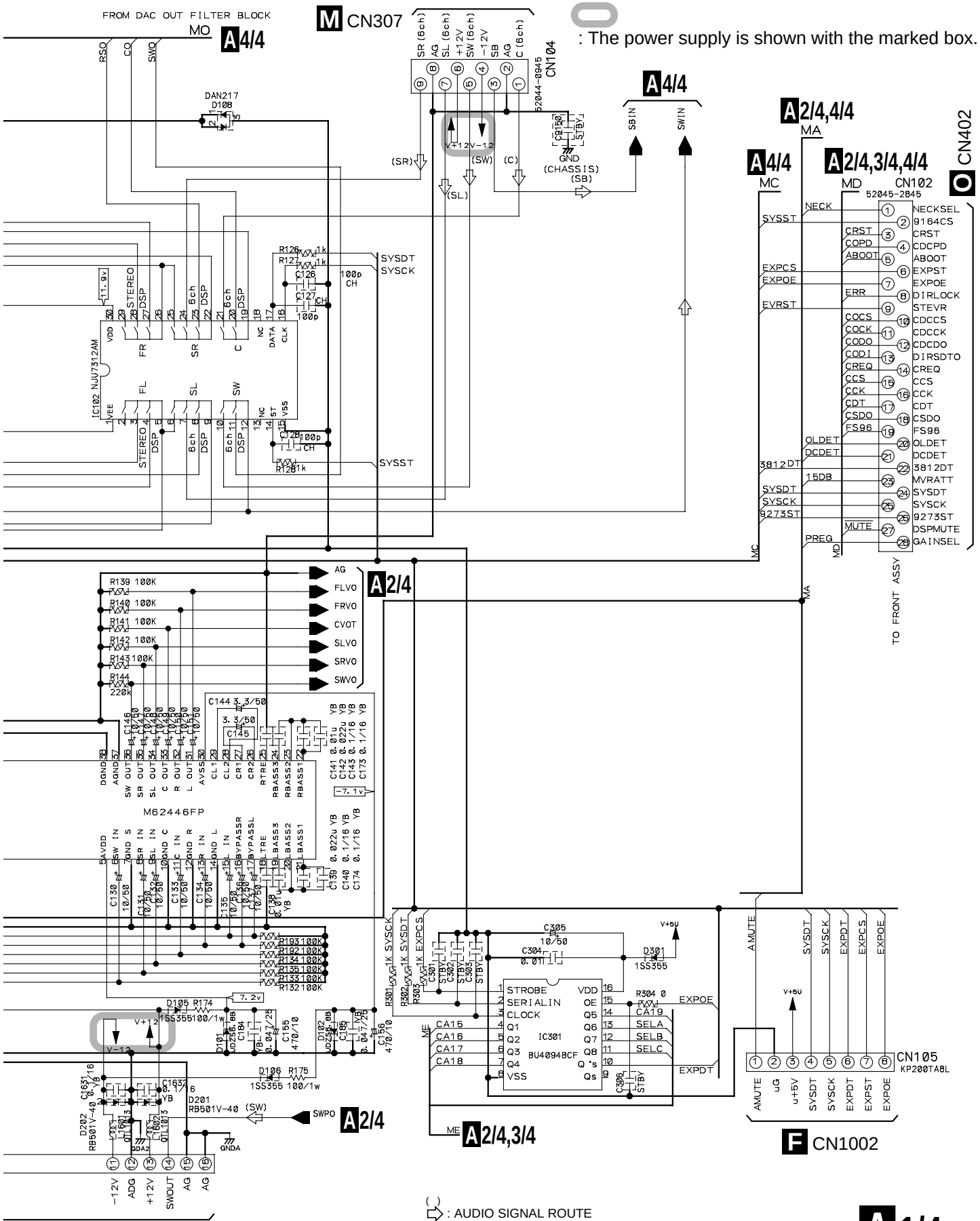
Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".



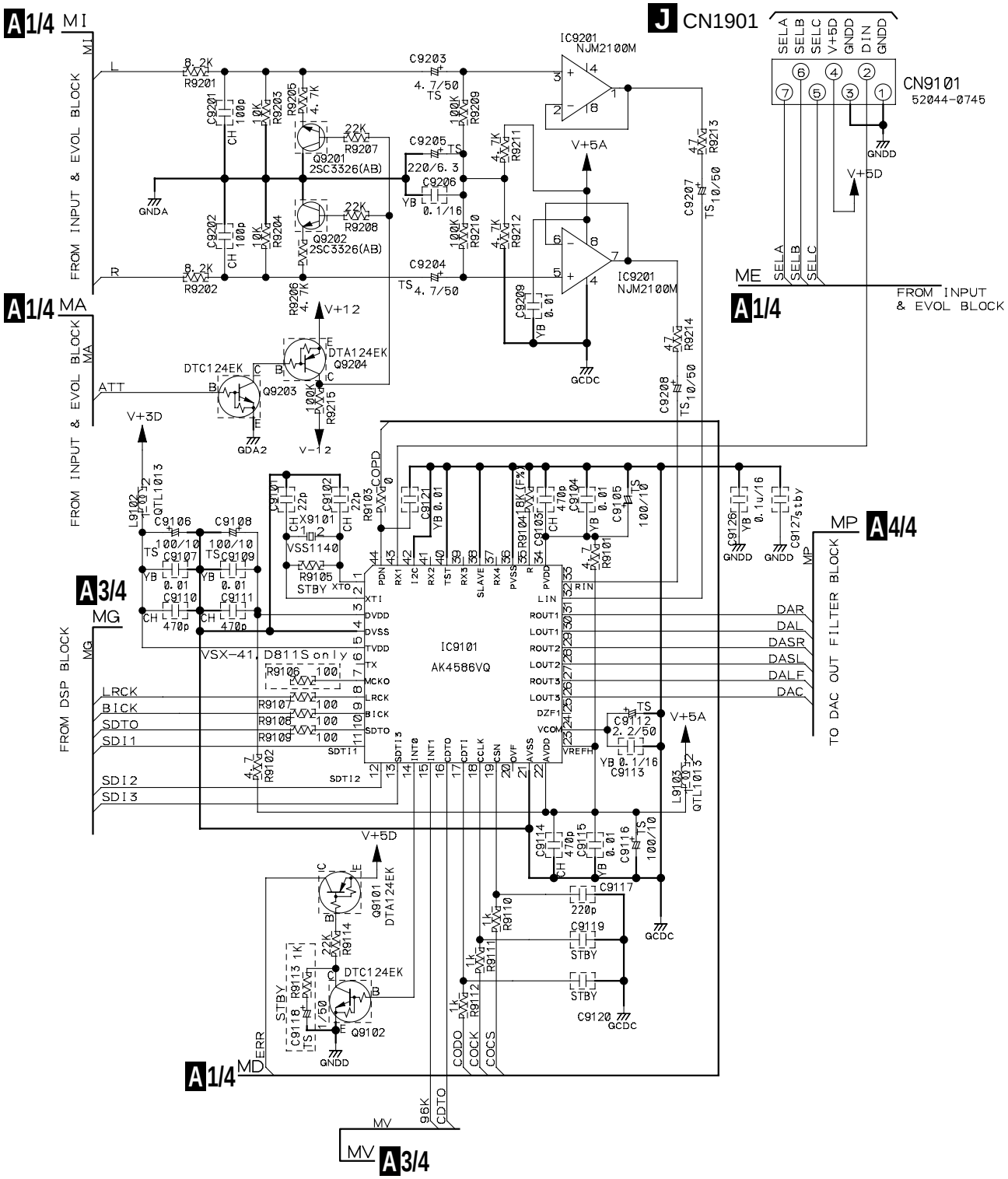
3.3 DD & INPUT ASSY(1/4)



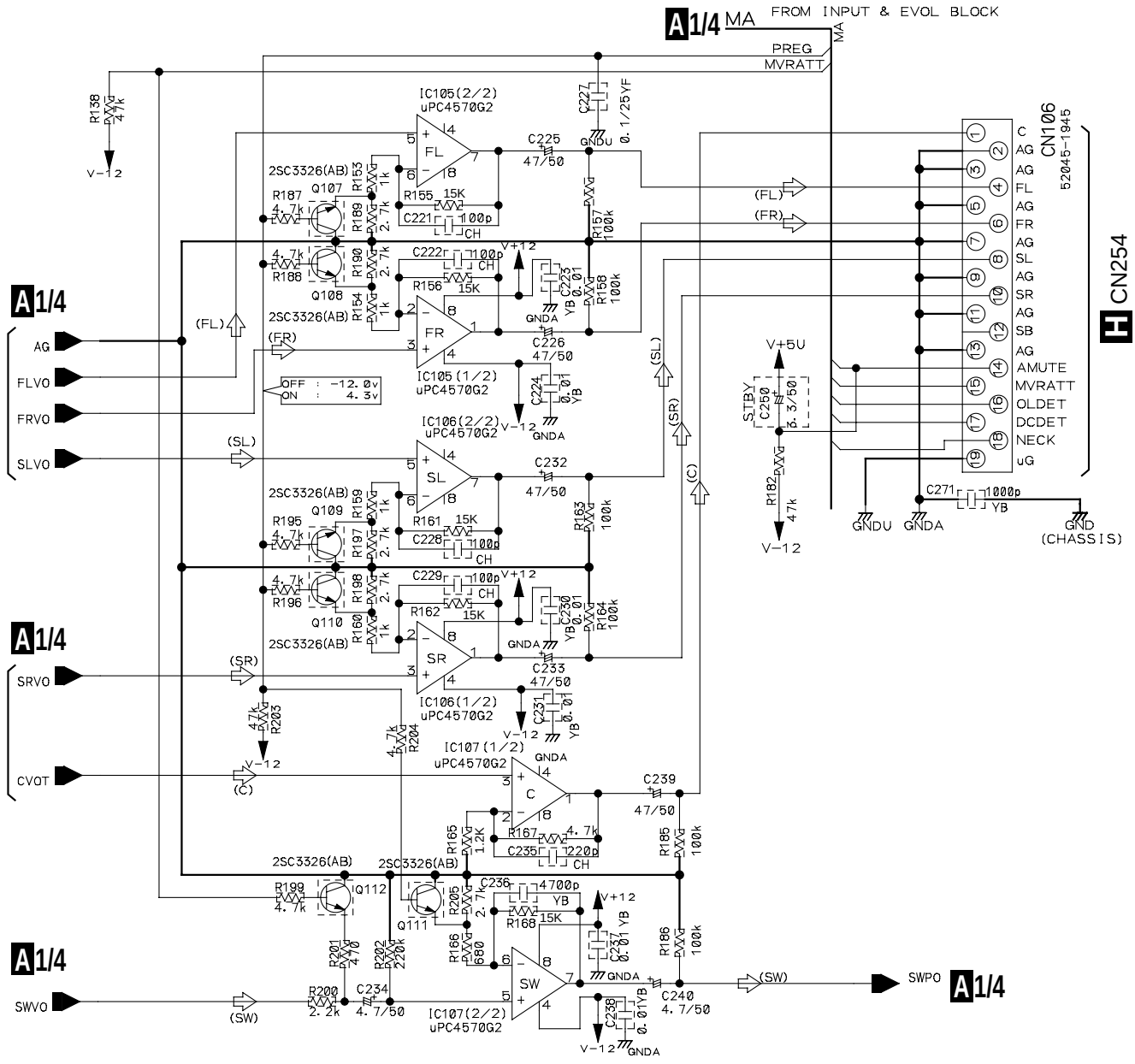
: The power supply is shown with the marked box.



3.4 DD & INPUT ASSY(2/4)



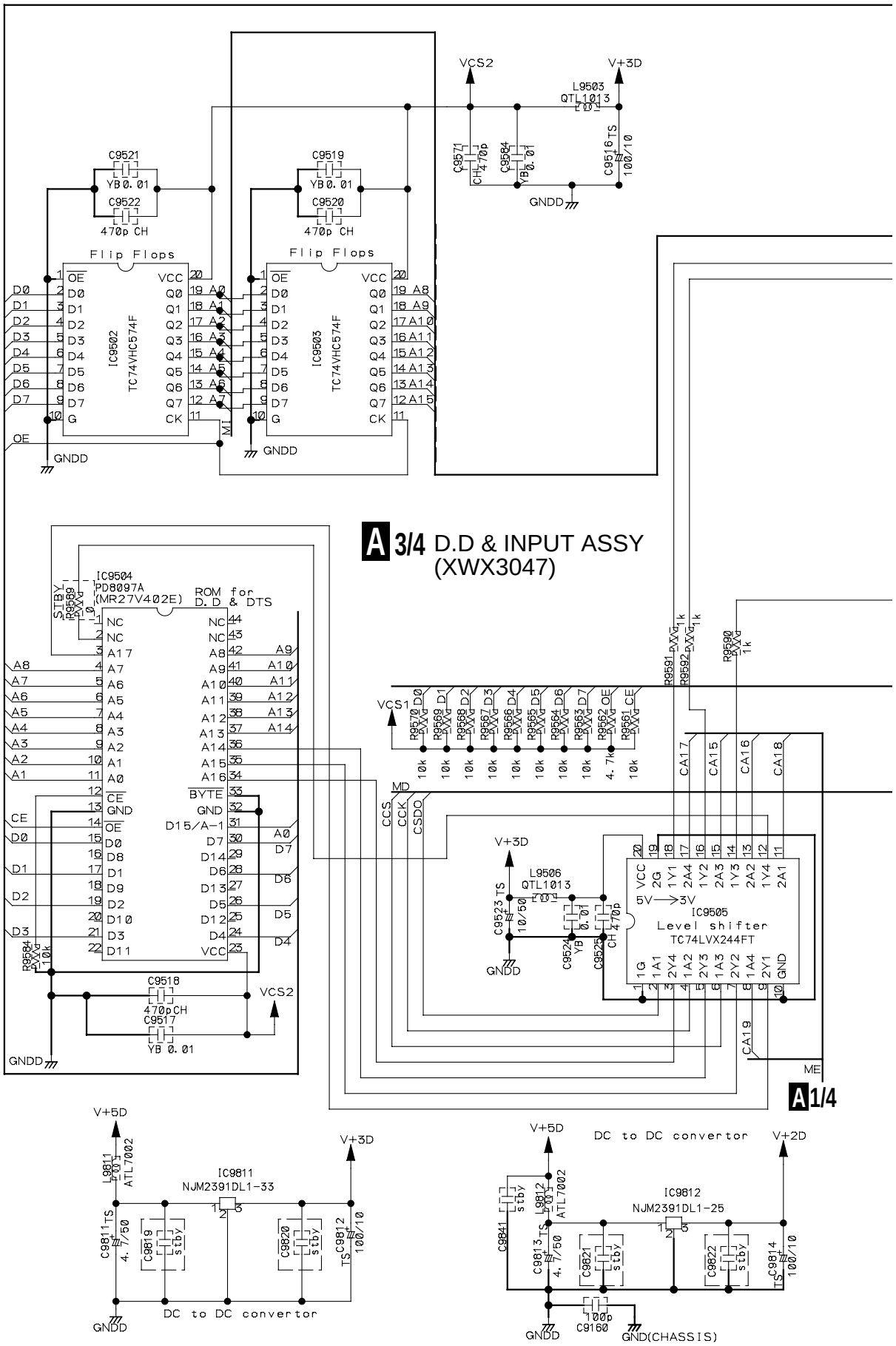
A 2/4 D.D & INPUT ASSY (XWX3047)

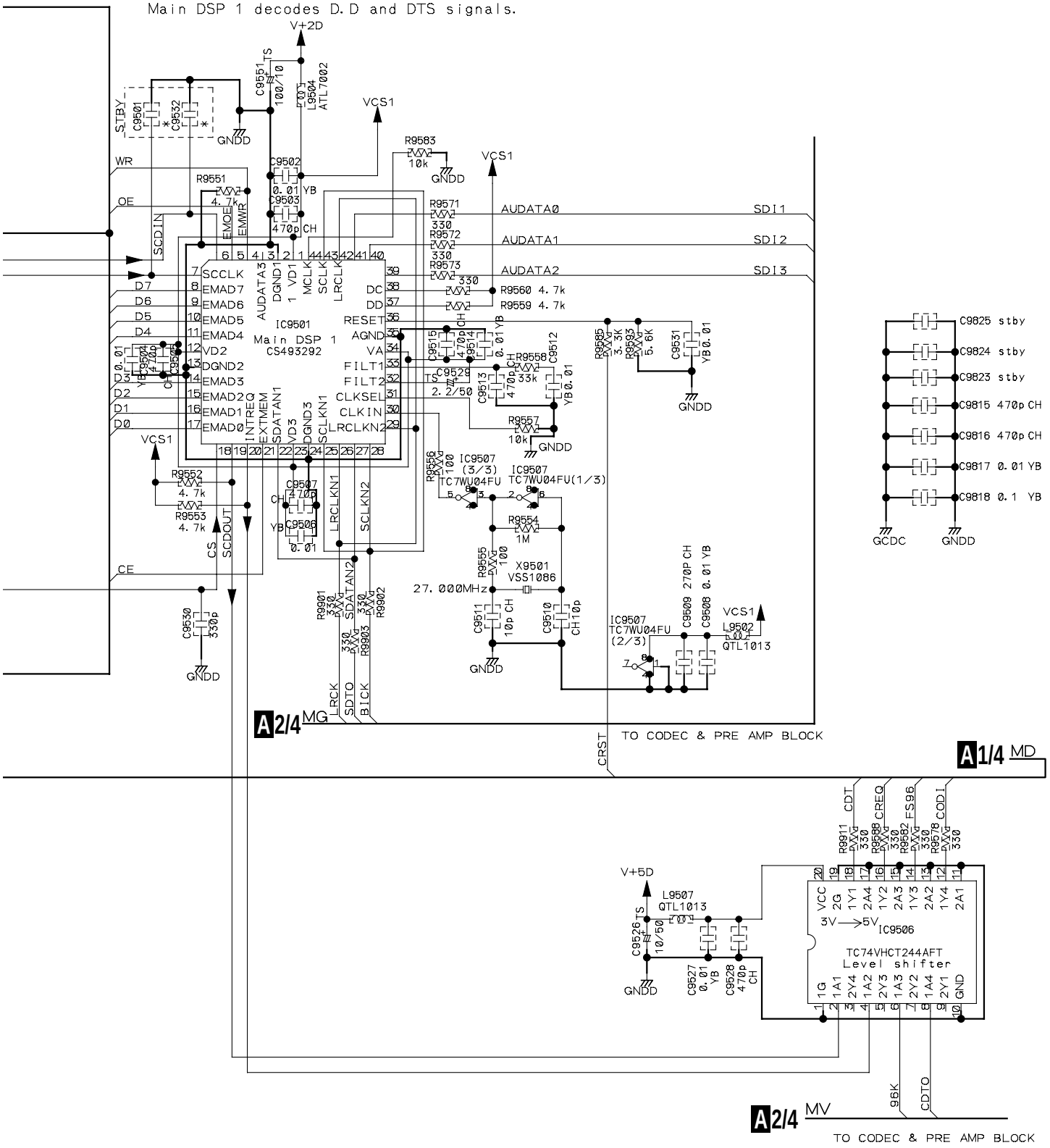


( ) ⇨ : AUDIO SIGNAL ROUTE

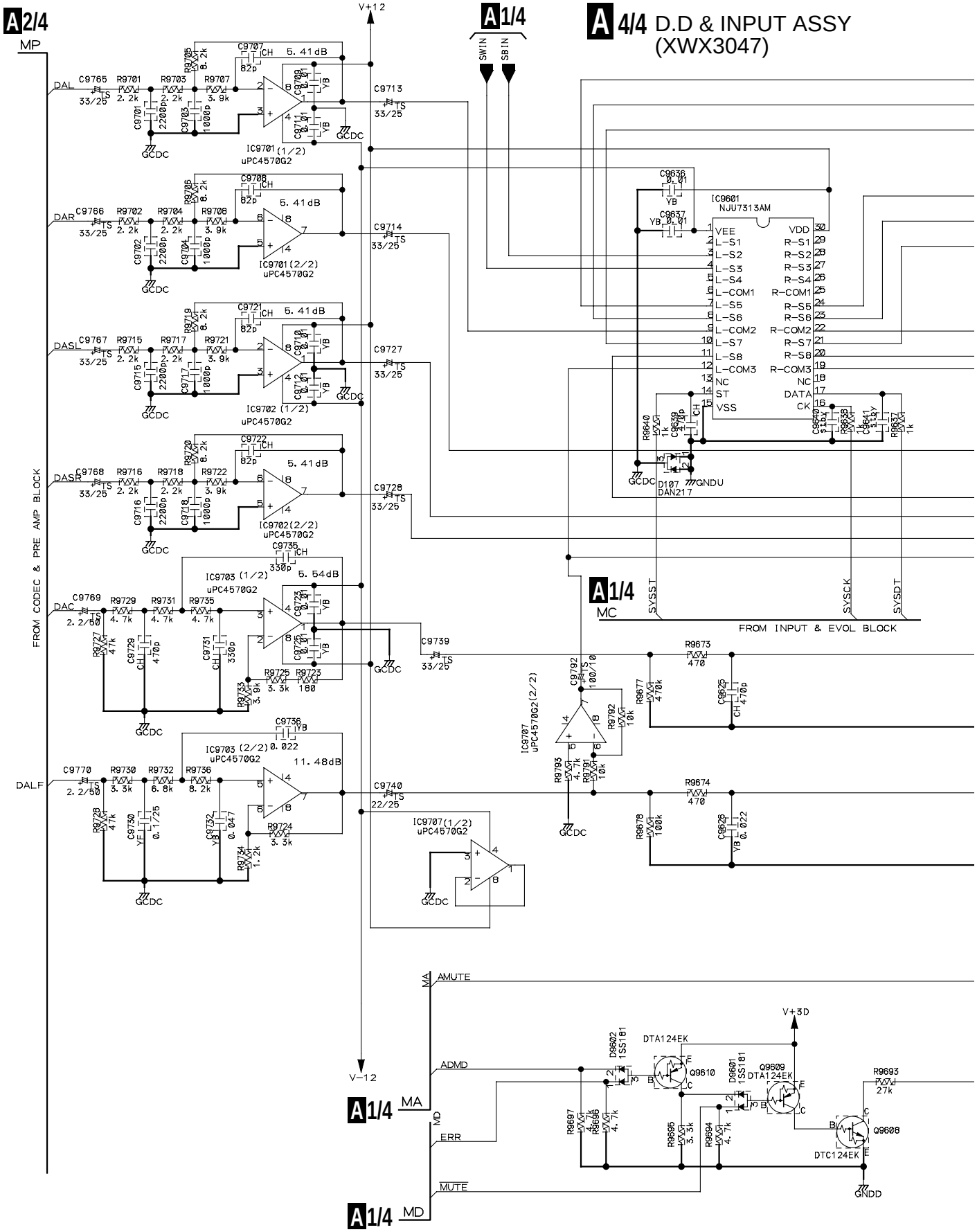
	FRONT SURROUND	SW	CENTER
GAIN (dB)	14.1 / 24.1	14.7 / 27.3	13.8

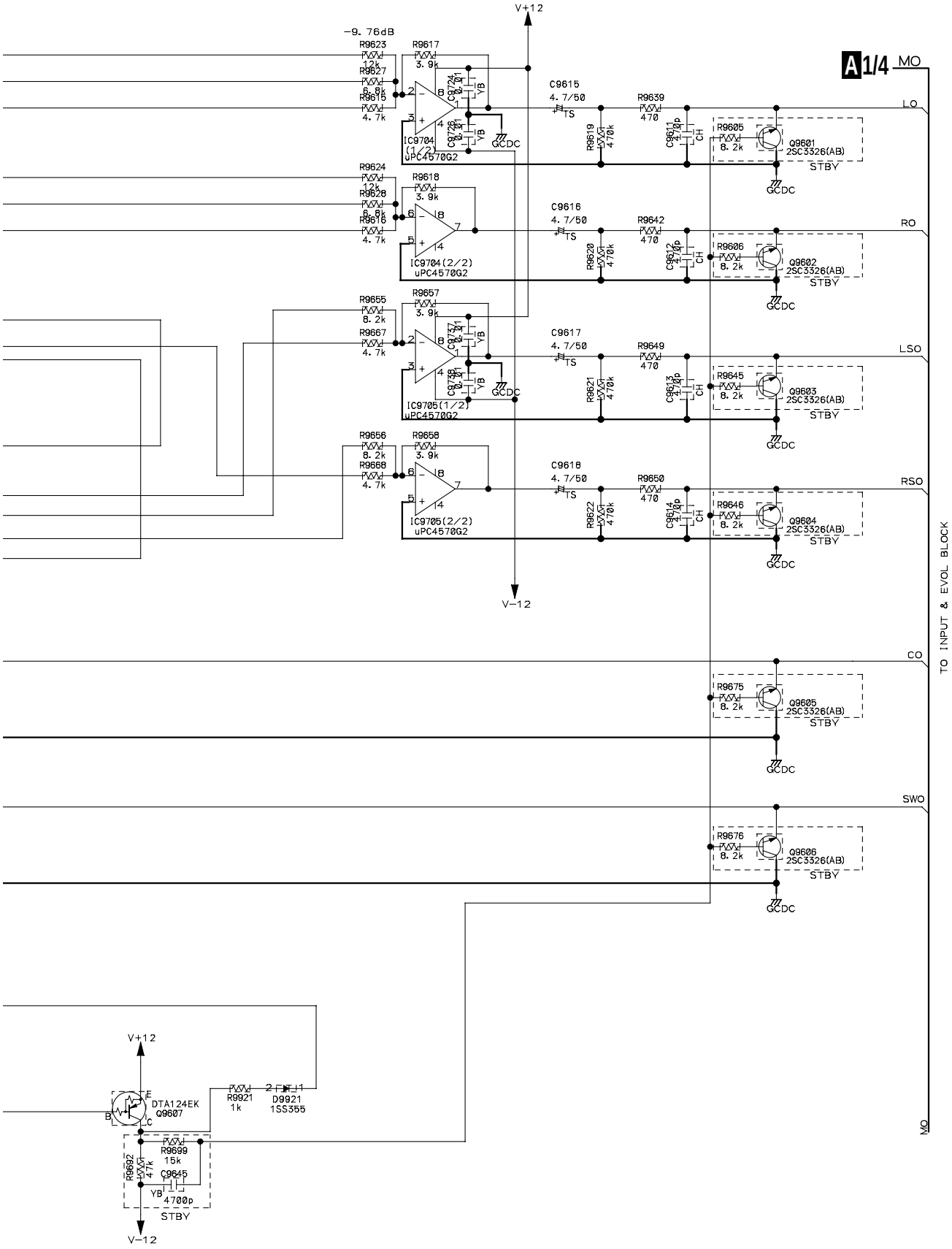
3.5 DD & INPUT ASSY(3/4)



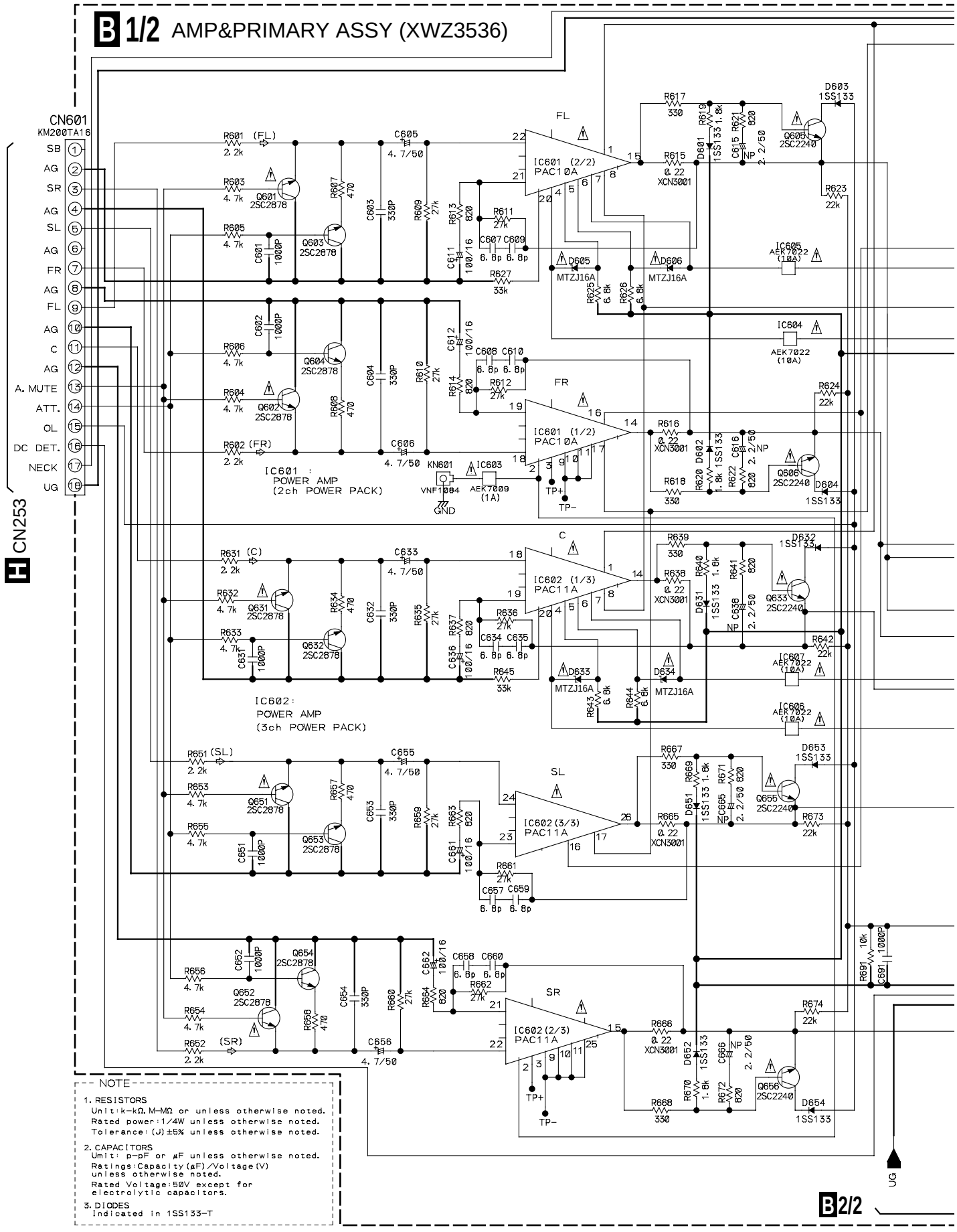

Main DSP 1 decodes D.D and DTS signals.
V+2D
VCS1
GNDD
IC9501
Main DSP 1
CS493292
AUDATA0
AUDATA1
AUDATA2
SDI1
SDI2
SDI3
IC9507 (3/3) TC7WU04FU
IC9507 TC7WU04FU(1/3)
IC9507 TC7WU04FU (2/3)
X9501
VSS1086
27.000MHz
L9504 ATL7002
L9502 QTL1013
L9507 QTL1013
C9825 stby
C9824 stby
C9823 stby
C9815 470p CH
C9816 470p CH
C9817 0.01 YB
C9818 0.1 YB
GCDC
A2/4 MG
TO CODEC & PRE AMP BLOCK
A1/4 MD
A2/4 MV
TO CODEC & PRE AMP BLOCK
IC9506
TC74VHCT244AFT
Level shifter
3V → 5V
V+5D
CRST
96K
CDTO

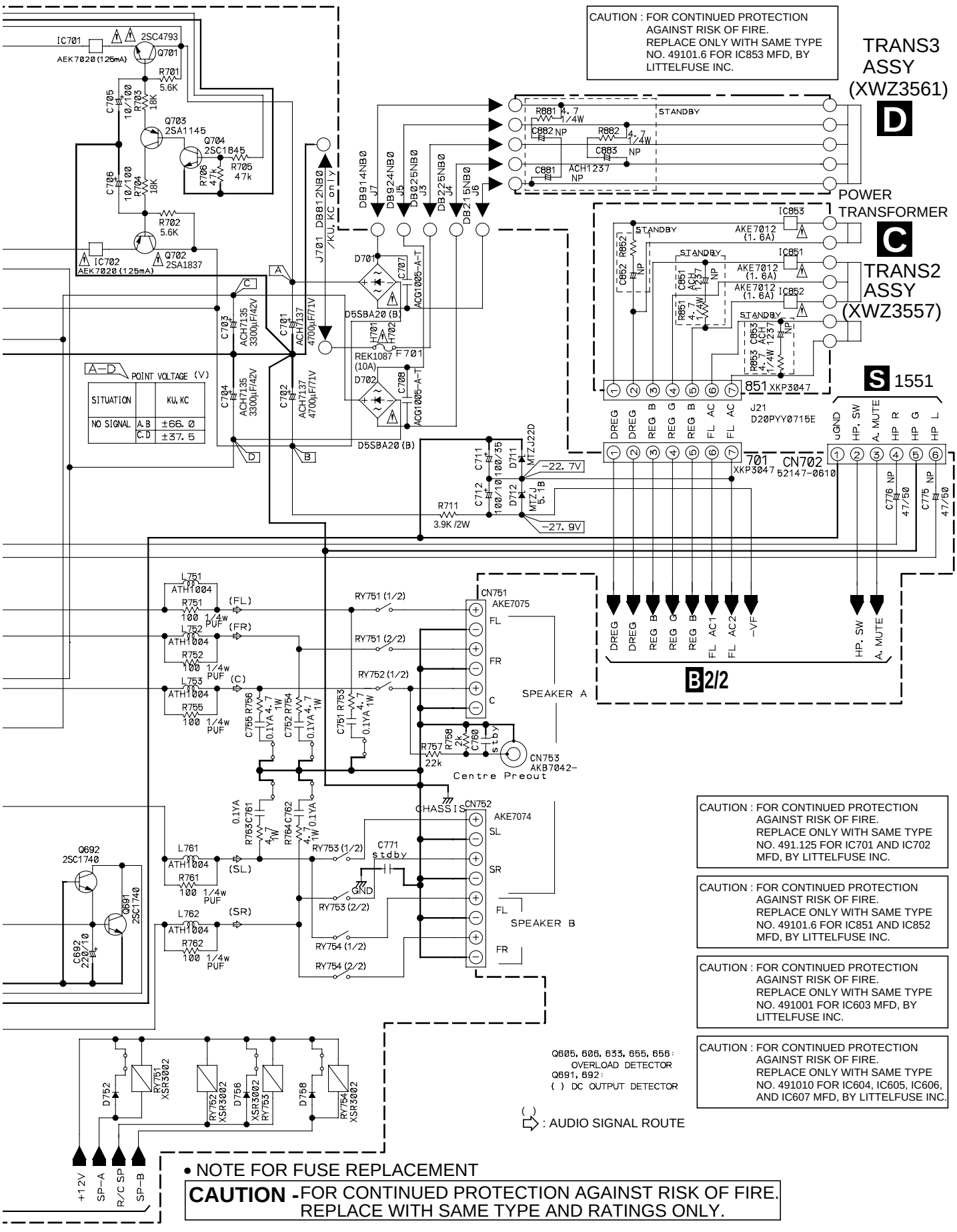
3.6 DD & INPUT ASSY(4/4)




A1/4 MO
V+12
V-12
-9.76dB
R9623 12k
R9627 6.8k
R9615 4.7k
R9617 3.9k
IC9704 (1/2) uPC4570G2
C9724 33p
C9726 33p
YB
GCDC
C9615 4.7/50 TS
R9639 470
R9619 470k
C9611 10p CH
R9605 8.2k
Q9601 2SC3326(AB)
STBY
LO
R9624 12k
R9628 6.8k
R9616 4.7k
R9618 3.9k
IC9704(2/2) uPC4570G2
C9616 4.7/50 TS
R9642 470
R9620 470k
C9612 10p CH
R9606 8.2k
Q9602 2SC3326(AB)
RO
R9655 8.2k
R9667 4.7k
R9657 3.9k
IC9705(1/2) uPC4570G2
C9737 33p
C9738 33p
C9617 4.7/50 TS
R9649 470
R9621 470k
C9613 10p CH
R9645 8.2k
Q9603 2SC3326(AB)
LSO
R9656 8.2k
R9668 4.7k
R9658 3.9k
IC9705(2/2) uPC4570G2
C9618 4.7/50 TS
R9650 470
R9622 470k
C9614 10p CH
R9646 8.2k
Q9604 2SC3326(AB)
RSO
TO INPUT & EVOL BLOCK
R9675 8.2k
Q9605 2SC3326(AB)
CO
R9676 8.2k
Q9606 2SC3326(AB)
SWO
MO
DTA124EK Q9607
R9921 1k
D9921 1SS355
R9699 15k
R9692 47k
C9645 4700p

3.7 AMP & PRIMARY ASSY(1/2), TRANS 2 and TRANS 3 ASSYS





A−D	POINT VOLTAGE (V)	
SITUATION		KU, KC
NO SIGNAL	A, B	±66.0
	C, D	±37.5

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491.125 FOR IC701 AND IC702 MFD, BY LITTELFUSE INC.

CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 49101.6 FOR IC851 AND IC852 MFD, BY LITTELFUSE INC.

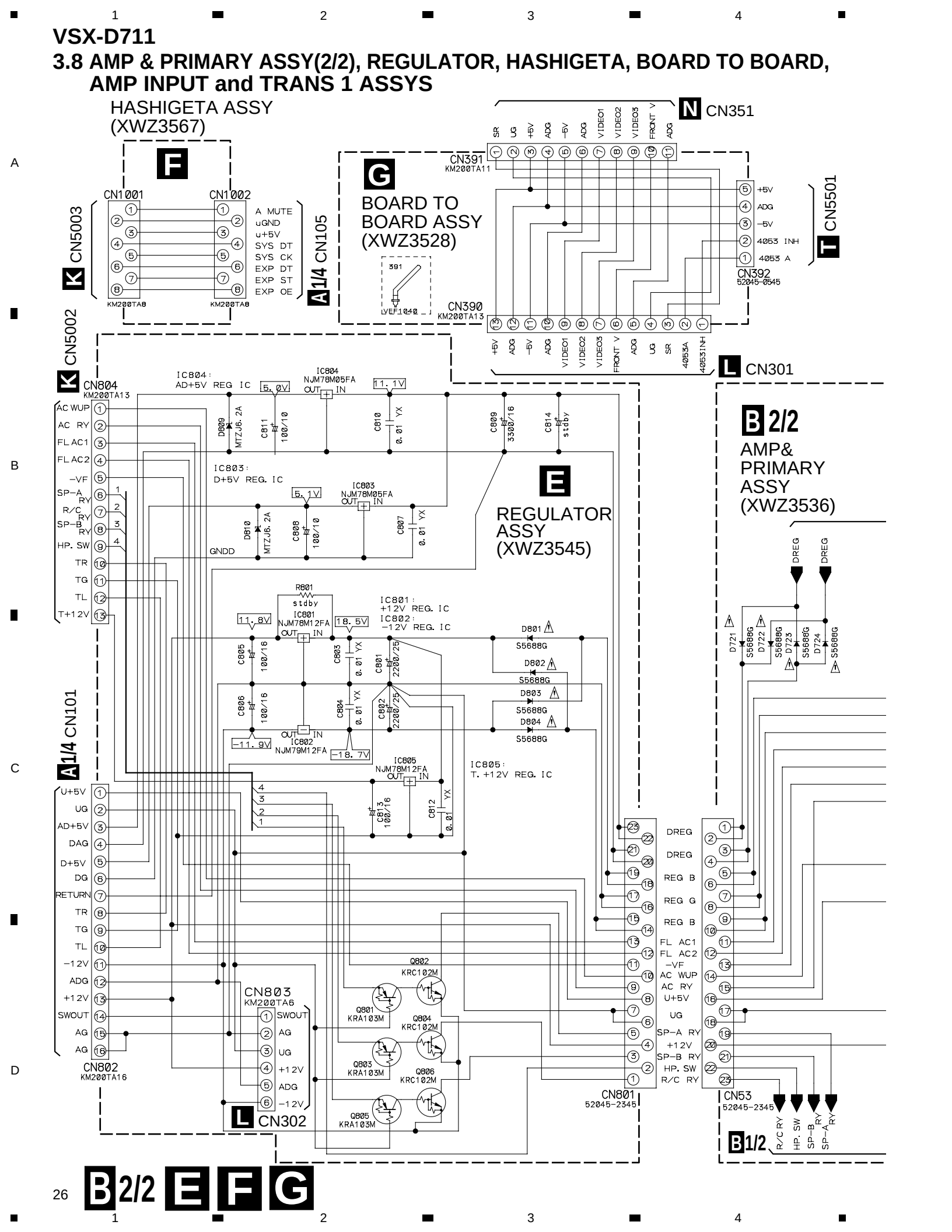
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491001 FOR IC603 MFD, BY LITTELFUSE INC.

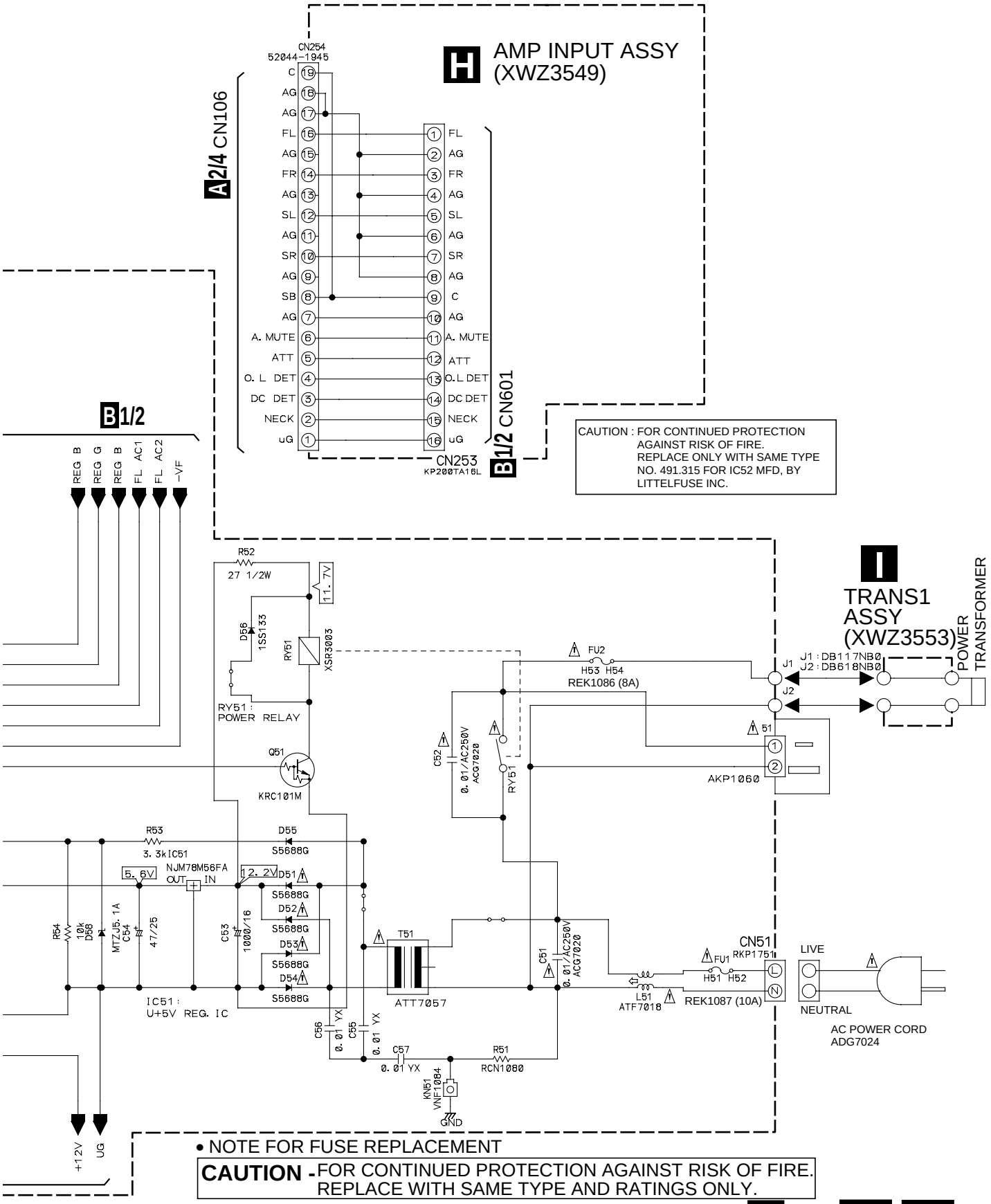
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491010 FOR IC604, IC605, IC606, AND IC607 MFD, BY LITTELFUSE INC.

• NOTE FOR FUSE REPLACEMENT

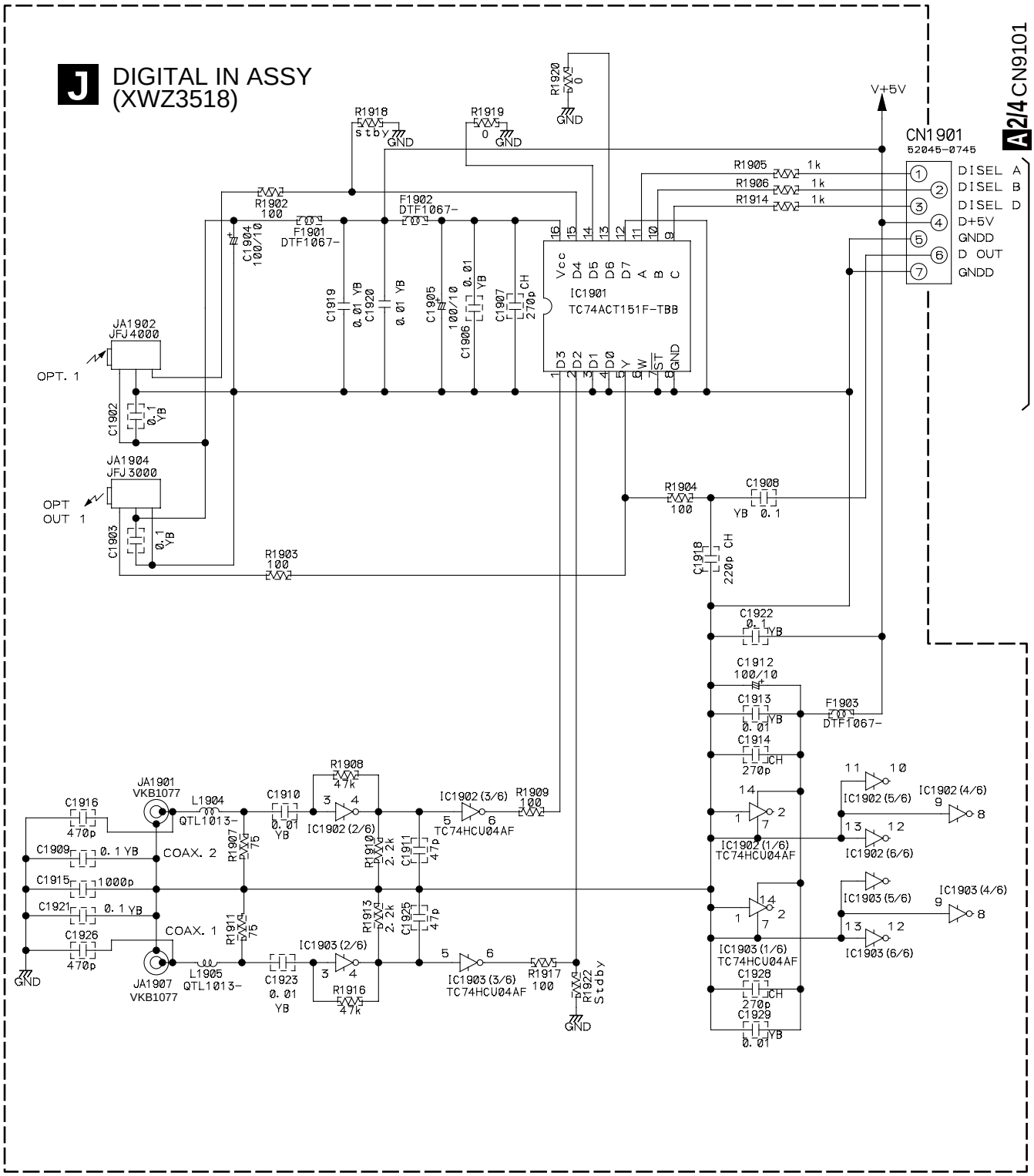
CAUTION - FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE WITH SAME TYPE AND RATINGS ONLY.

3.8 AMP & PRIMARY ASSY(2/2), REGULATOR, HASHIGETA, BOARD TO BOARD, AMP INPUT and TRANS 1 ASSYS

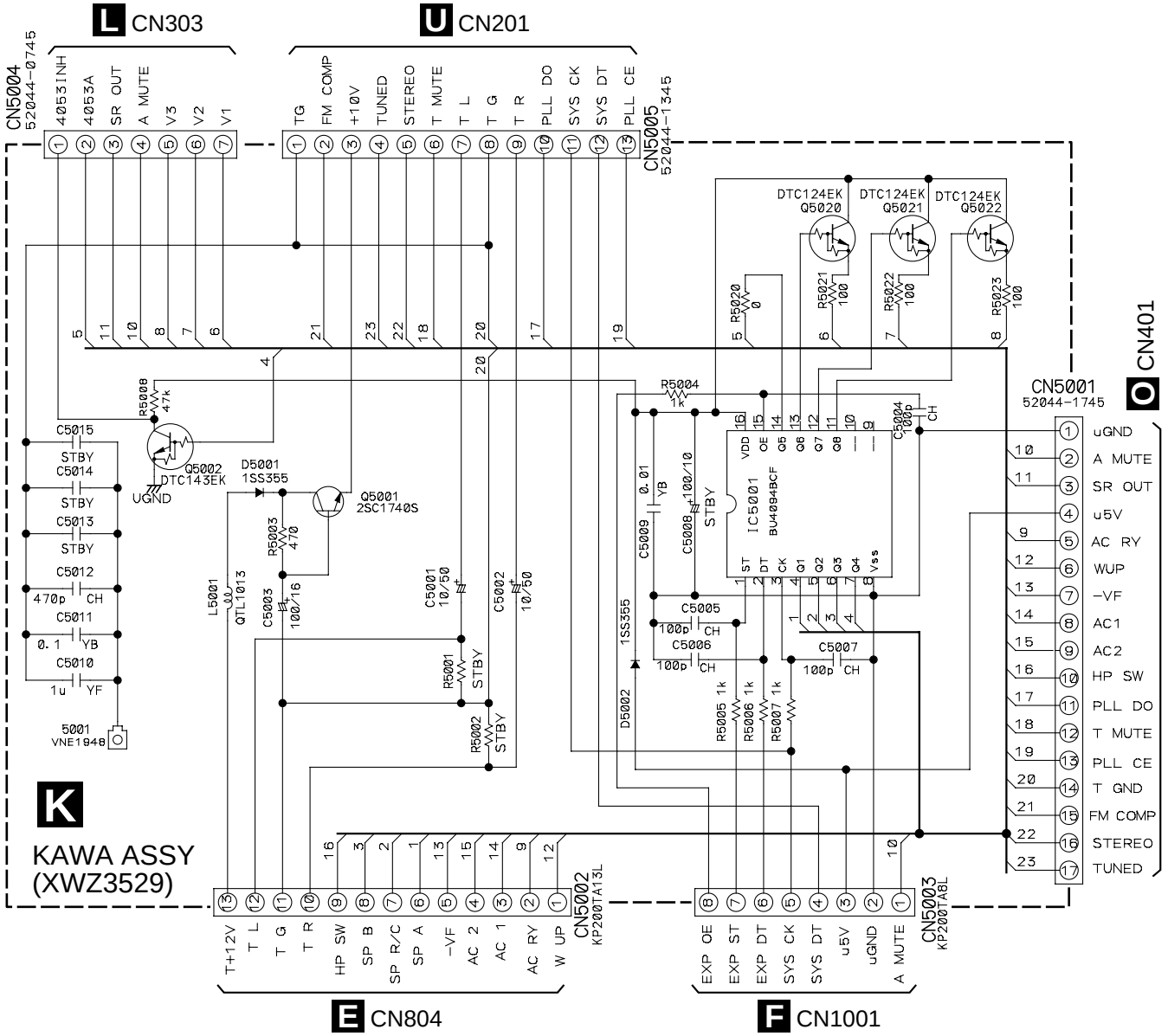



H AMP INPUT ASSY (XWZ3549)
CN254 52044-1945
A2/4 CN106
B1/2 CN601
CN253 KP200TA16L
C AG AG FL AG FR AG SL AG SR AG SB AG A. MUTE ATT O. L DET DC DET NECK uG
FL AG FR AG SL AG SR AG C AG A. MUTE ATT O. L DET DC DET NECK uG
CAUTION : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. 491.315 FOR IC52 MFD, BY LITTELFUSE INC.
B1/2
REG B REG G REG B FL AC1 FL AC2 -VF
I TRANS1 ASSY (XWZ3553) POWER TRANSFORMER
J1 : DB117NB0
J2 : DB618NB0
R52 27 1/2W
11. 7V
D56 1SS133
RY51 XSR3003
RY51 : POWER RELAY
Q51 KRC101M
FU2 H53 H54 REK1086 (8A)
C52 0. 01/AC250V ACG7020
RY51
AKP1060
R53 3. 3kIC51
D55 S5688G
5. 6V NJM78M56FA OUT IN
12. 2V D51 S5688G
D52 S5688G
D53 S5688G
D54 S5688G
R54 10k D58 MTZJ5. 1A C54 47/25
C53 1000/16
IC51 : U+5V REG. IC
T51 ATT7057
C51 0. 01/AC250V ACG7020
L51 ATF7018
FU1 H51 H52
CN51 RKP1751
REK1087 (10A)
LIVE
NEUTRAL
AC POWER CORD ADG7024
C56 0. 01 YX
C55 0. 01 YX
C57 0. 01 YX
R51 RCN1080
KN51 VNF1084
GND
+12V UG
• NOTE FOR FUSE REPLACEMENT
CAUTION - FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE WITH SAME TYPE AND RATINGS ONLY.

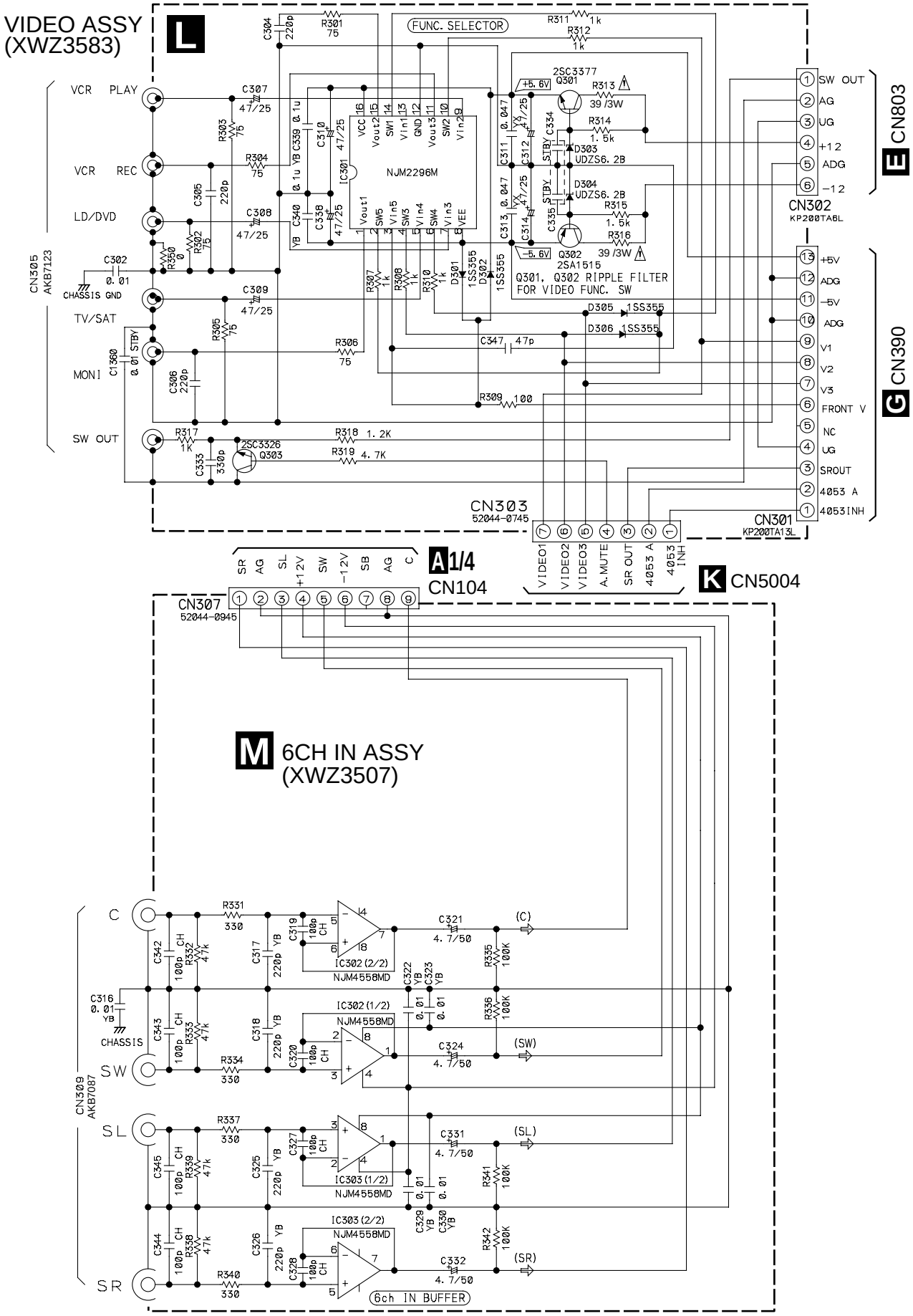
3.9 DIGITAL IN ASSY



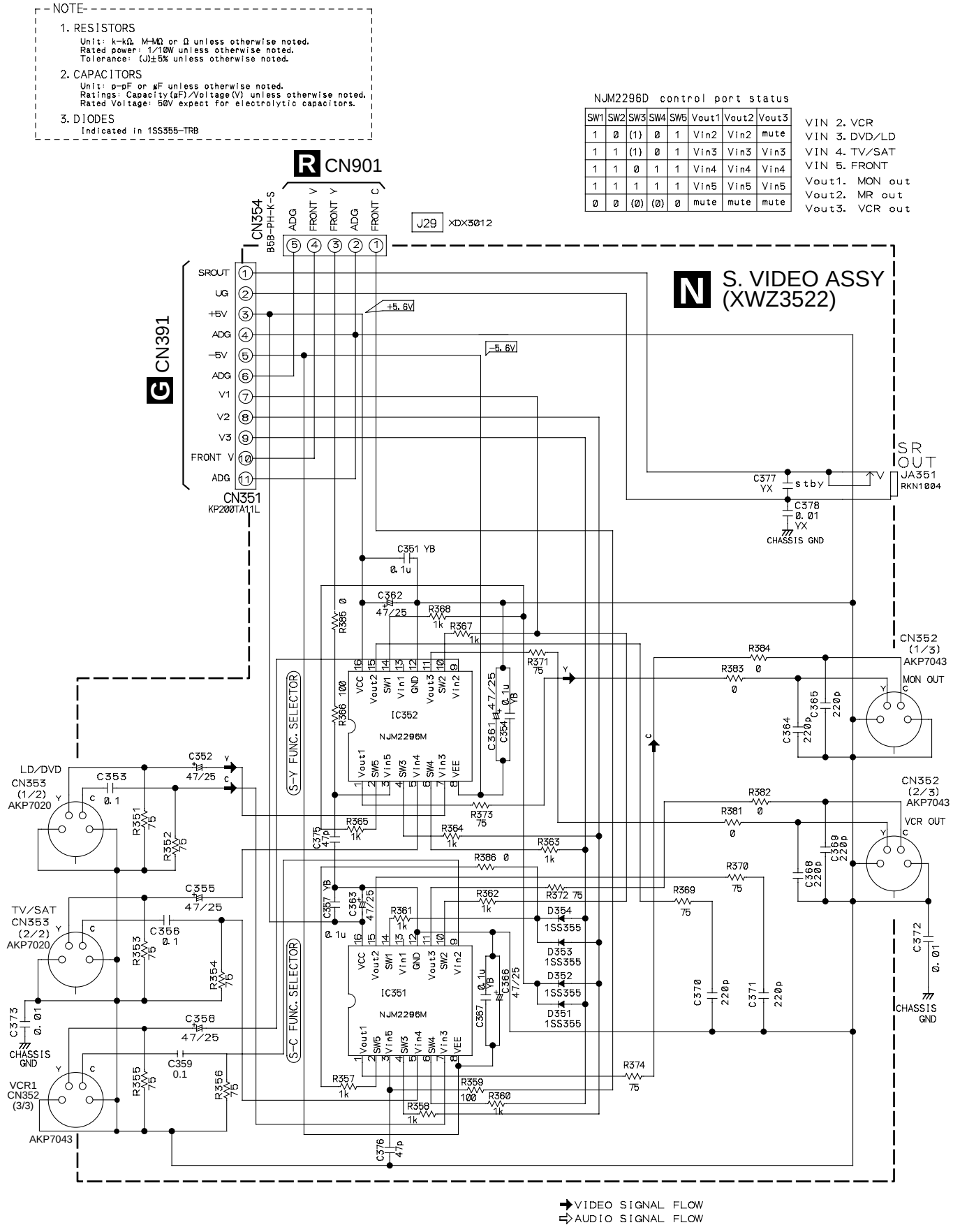
3.10 KAWA ASSY



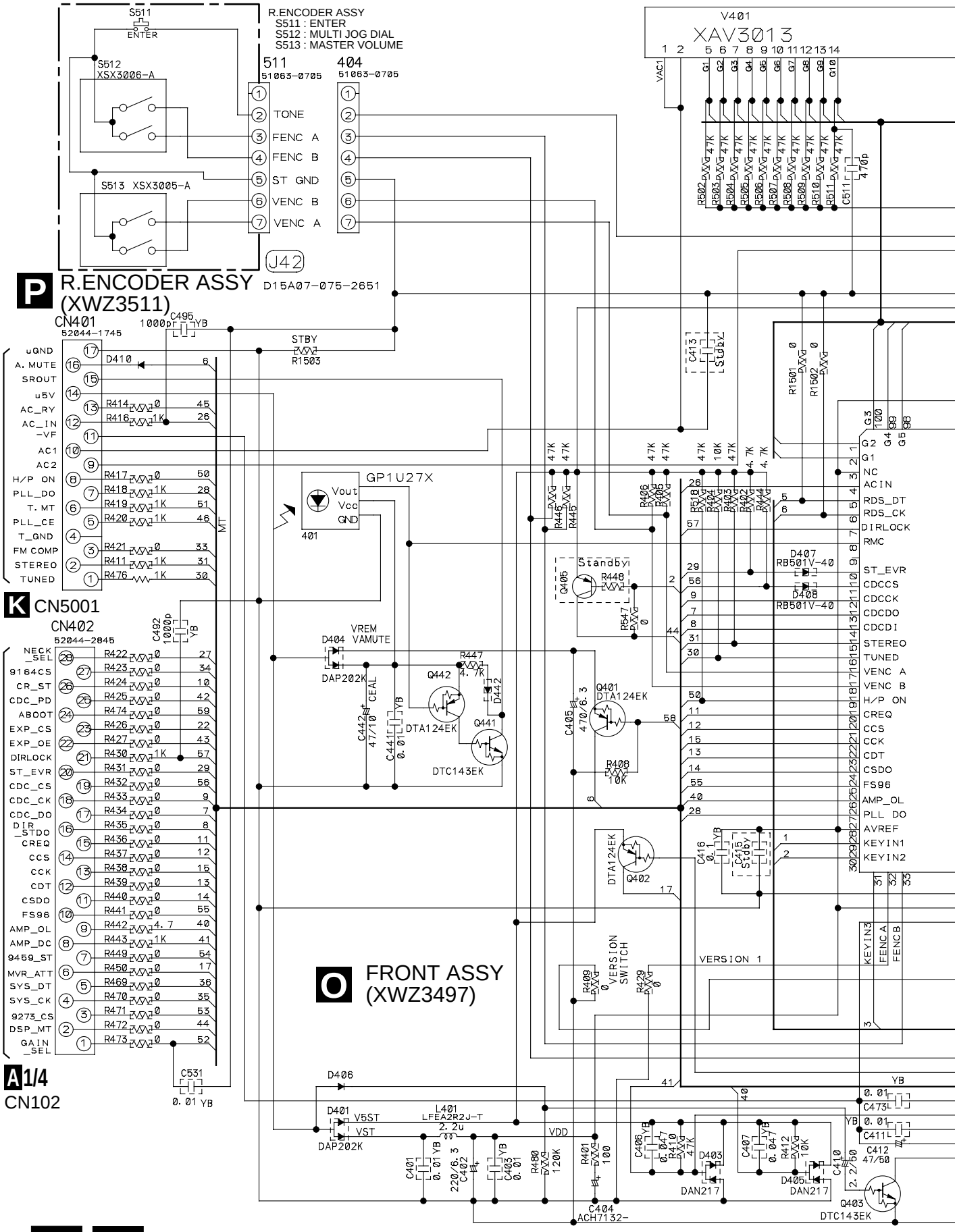
3.11 VIDEO and & 6CH IN ASSYS

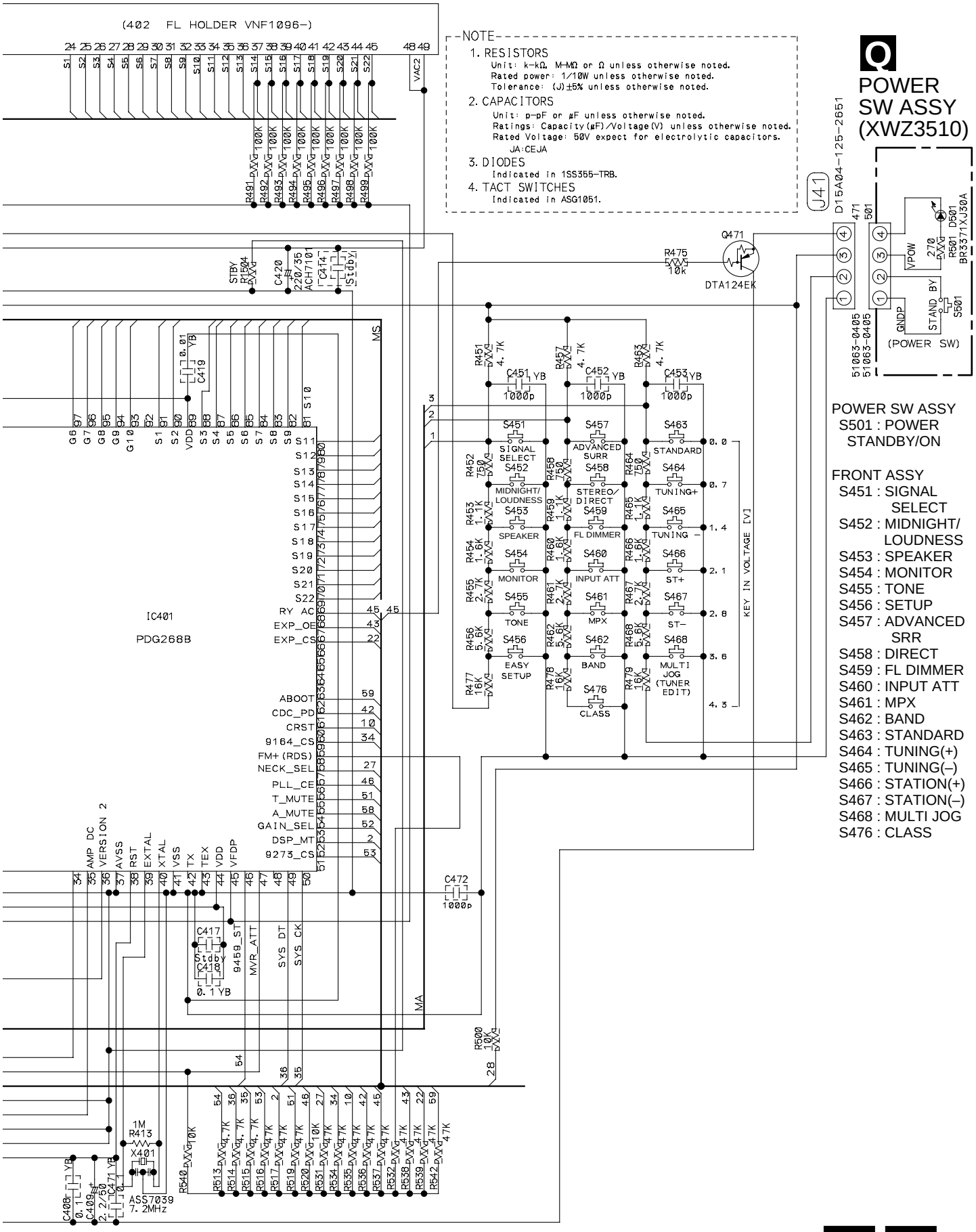


3.12 S. VIDEO ASSY



3.13 FRONT, R. ENCODER and POWER SW ASSYS

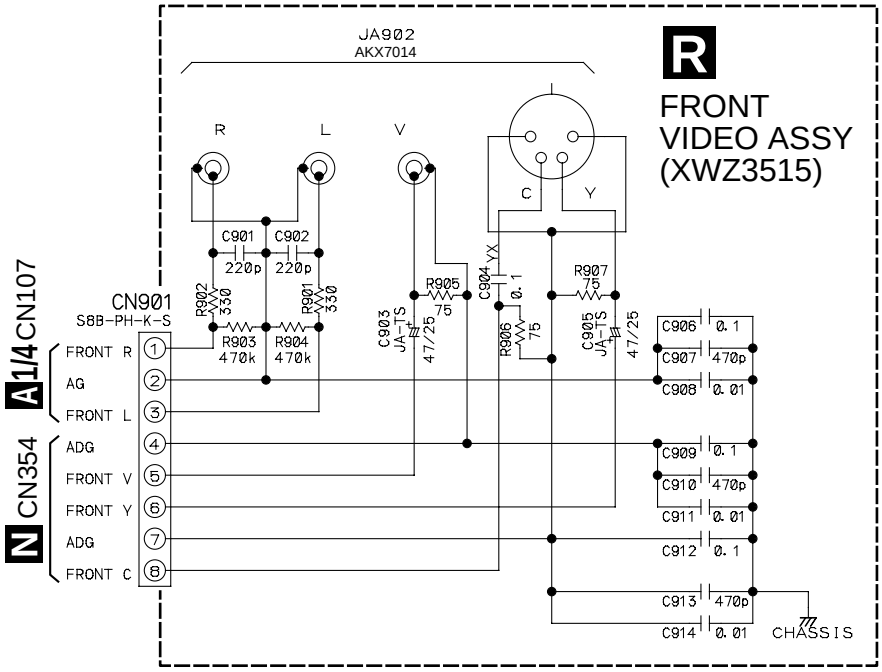


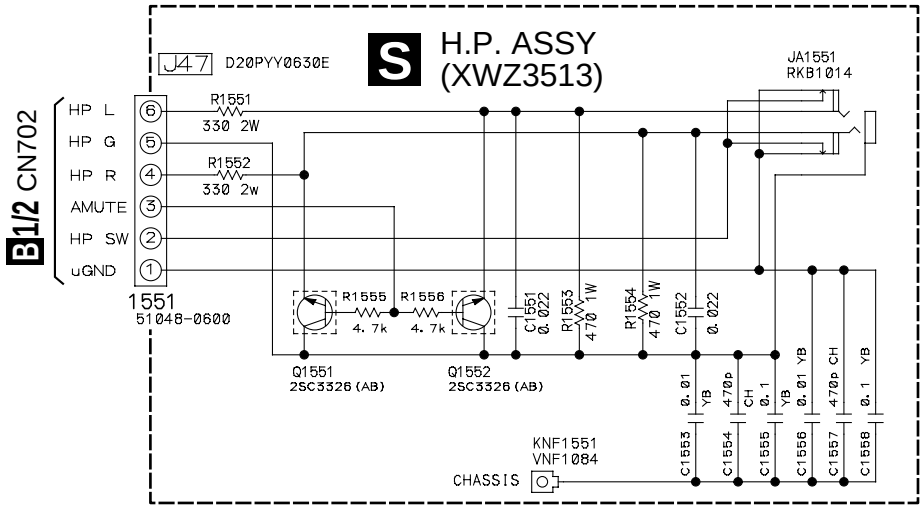


POWER SW ASSY
S501 : POWER STANDBY/ON

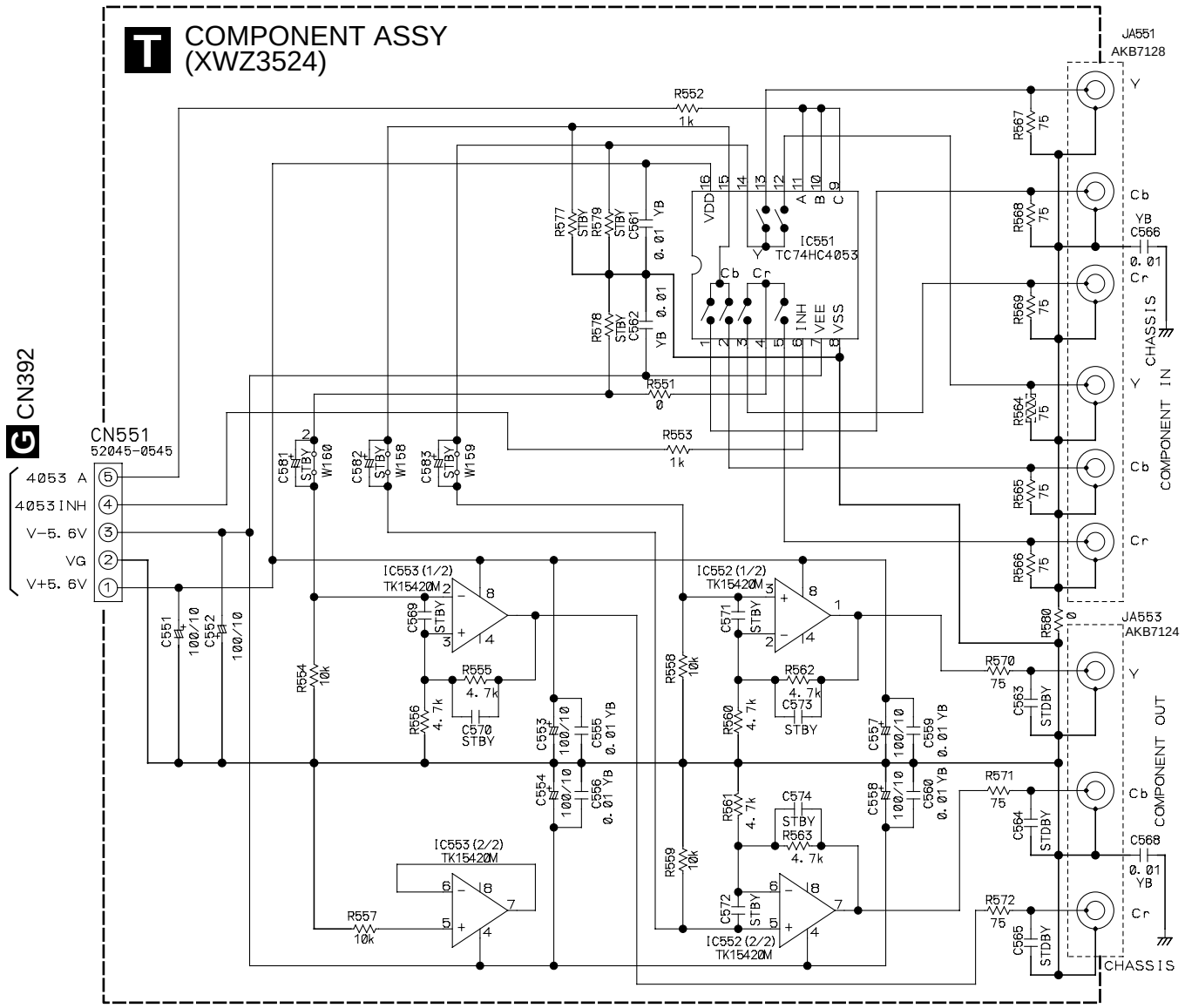
FRONT ASSY
S451 : SIGNAL SELECT
S452 : MIDNIGHT/ LOUDNESS
S453 : SPEAKER
S454 : MONITOR
S455 : TONE
S456 : SETUP
S457 : ADVANCED SRR
S458 : DIRECT
S459 : FL DIMMER
S460 : INPUT ATT
S461 : MPX
S462 : BAND
S463 : STANDARD
S464 : TUNING(+)
S465 : TUNING(–)
S466 : STATION(+)
S467 : STATION(–)
S468 : MULTI JOG
S476 : CLASS

3.14 FRONT VIDEO and H.P. ASSYS



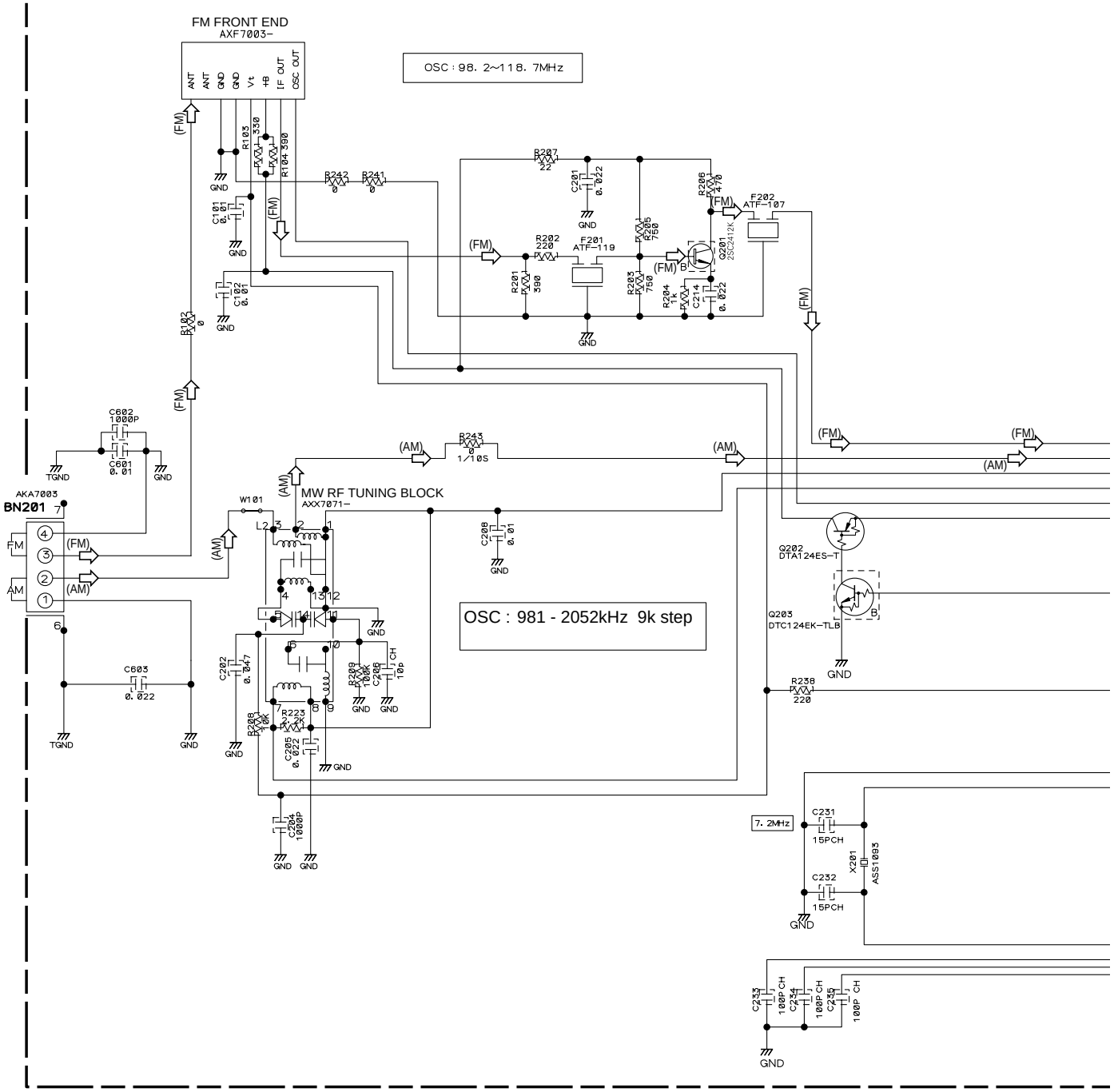


3.15 COMPONENT ASSY



3.16 FM/AM TUNER MODULE

FM/AM TUNER MODULE (AXQ7231)



Notes

: The power supply is shown with the marked box.

1. RESISTORS

Indicated in Ω, 1/16W±5% Tolerance unless otherwise noted K:KΩ, M:MΩ.

2. CAPACITORS

Indicated in Capacity(μF)/VOLTAGE(V) unless otherwise noted P:PF.

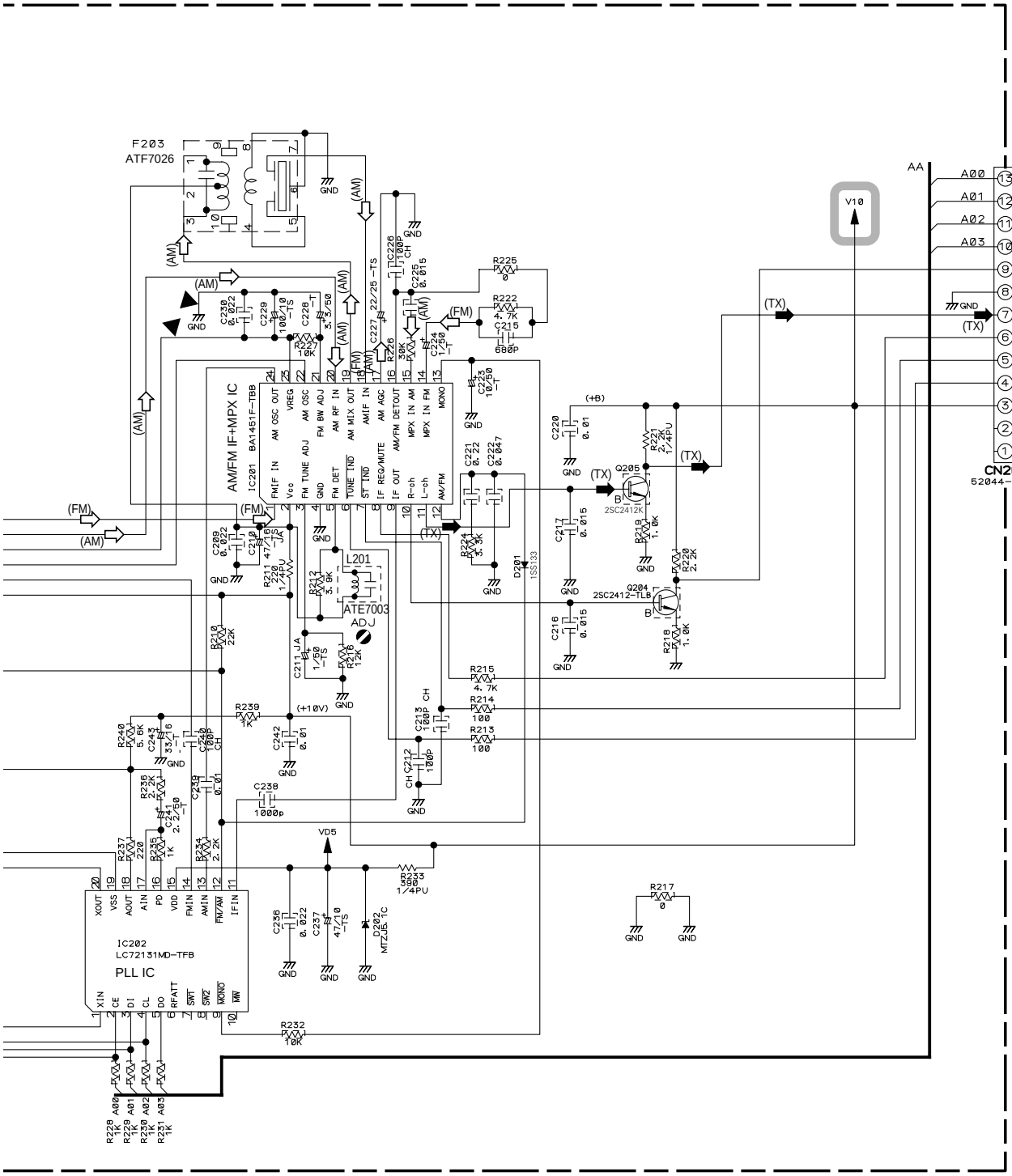
3. DIODES

No mark diode is 1SS133.

(TX) : AUDIO SIGNAL ROUTE (TUNER)

(AM) : AM SIGNAL ROUTE

(FM) : FM SIGNAL ROUTE



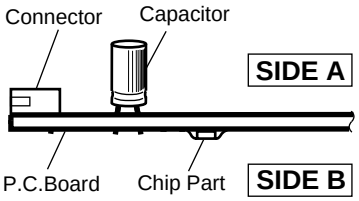
4. PCB CONECTION DIAGRAM

NOTE FOR PCB DIAGRAMS :

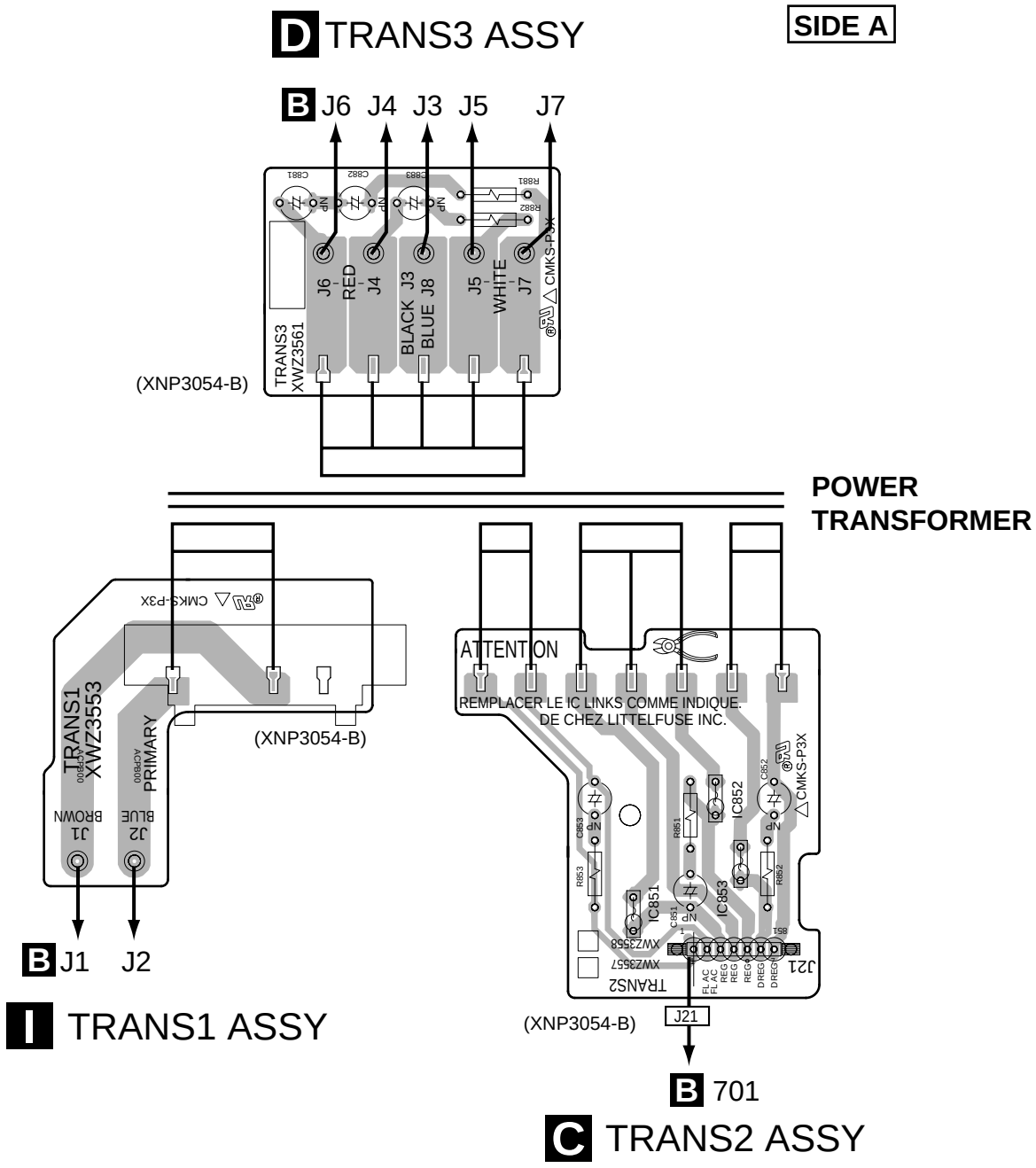
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
B C E	B C E B C E	Transistor
B C E	B C E B C E	Transistor with resistor
D G S	D G S D G S	Field effect transistor
		Resistor array
		3-terminal regulator

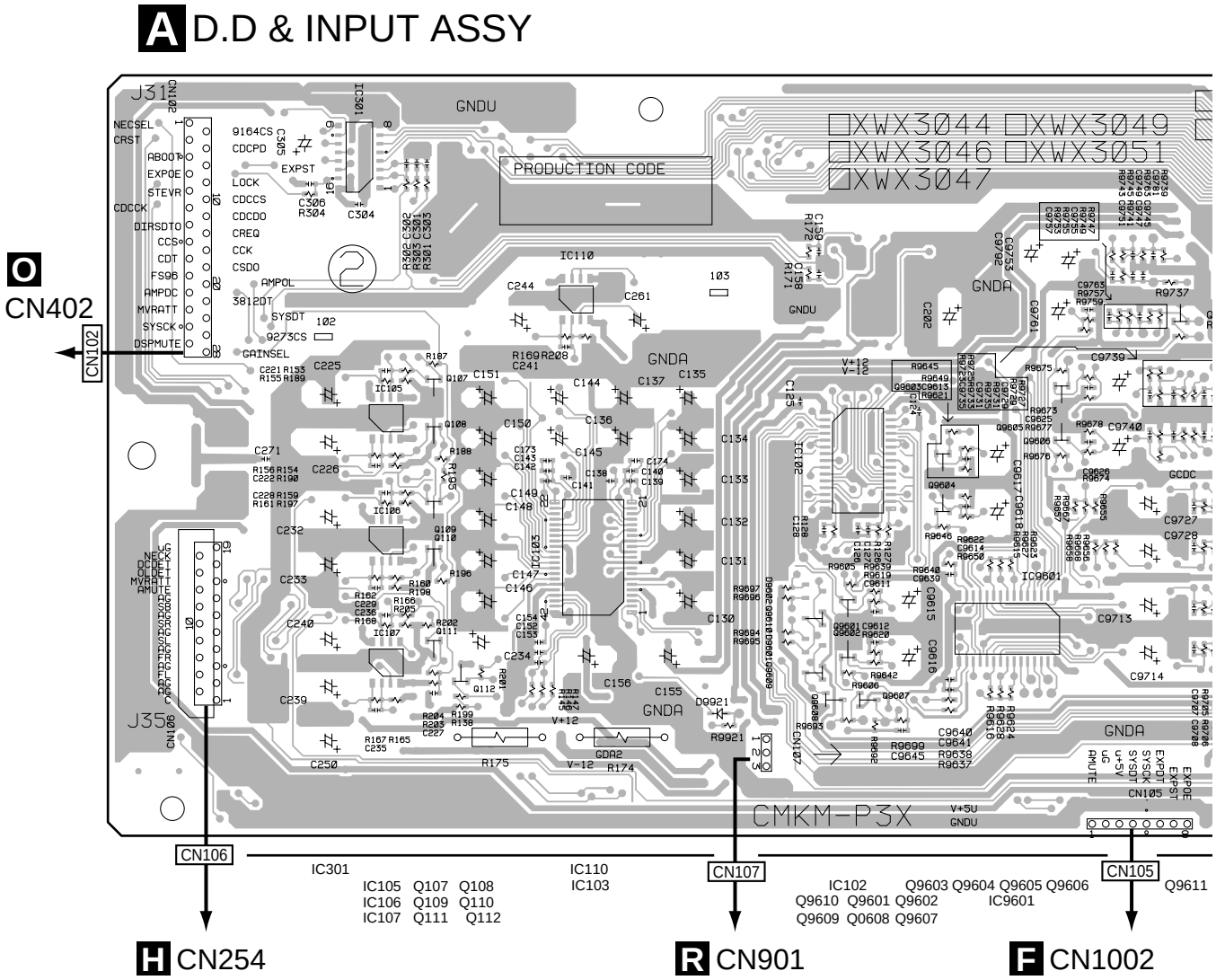
3. The parts mounted on this PCB include all necessary parts for several destinations.
   For further information for respective destinations, be sure to check with the schematic diagram.
4. View point of PCB diagrams.

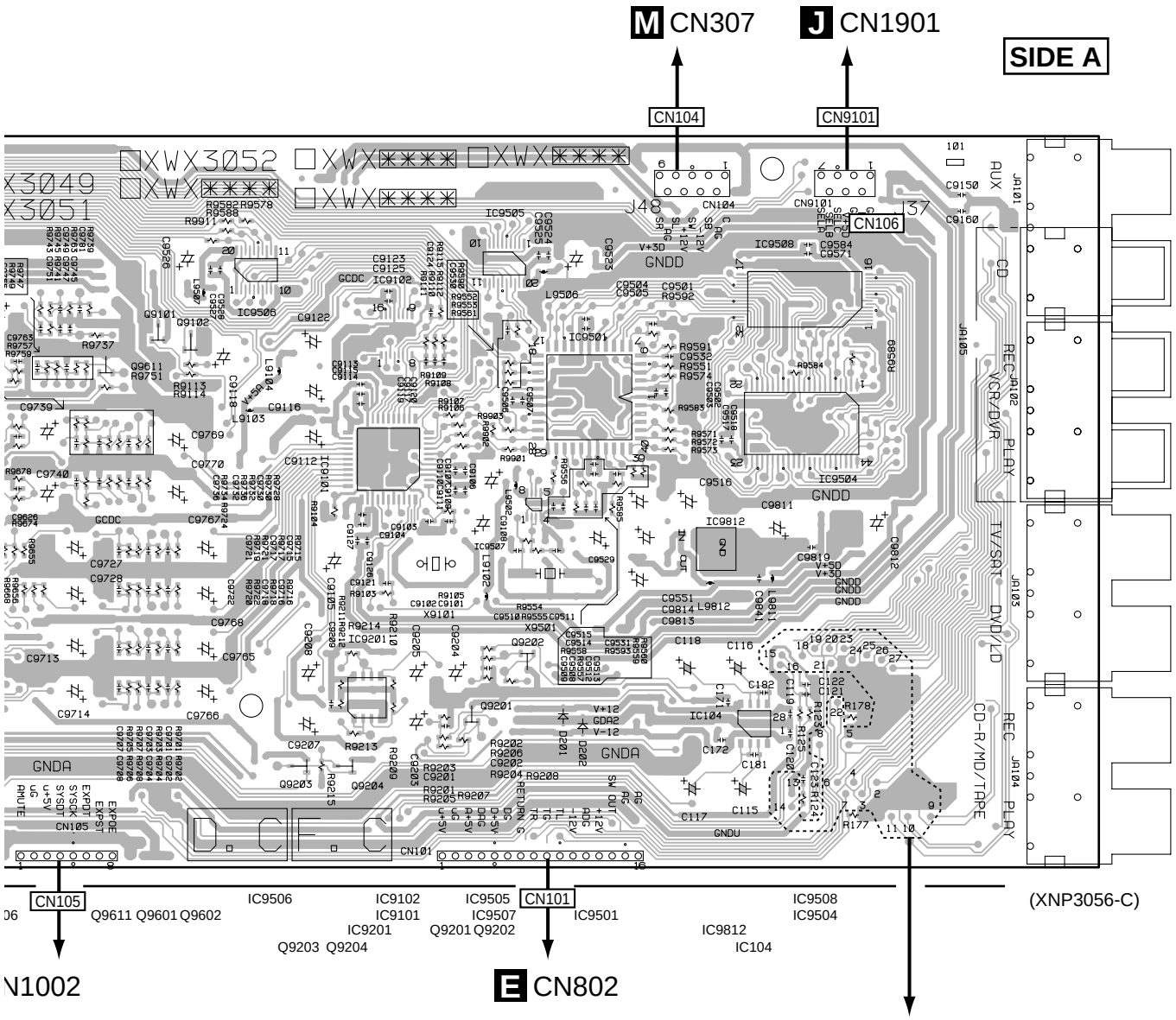


4.1 TRANS 1, TRANS 2 and TARNS 3 ASSYS



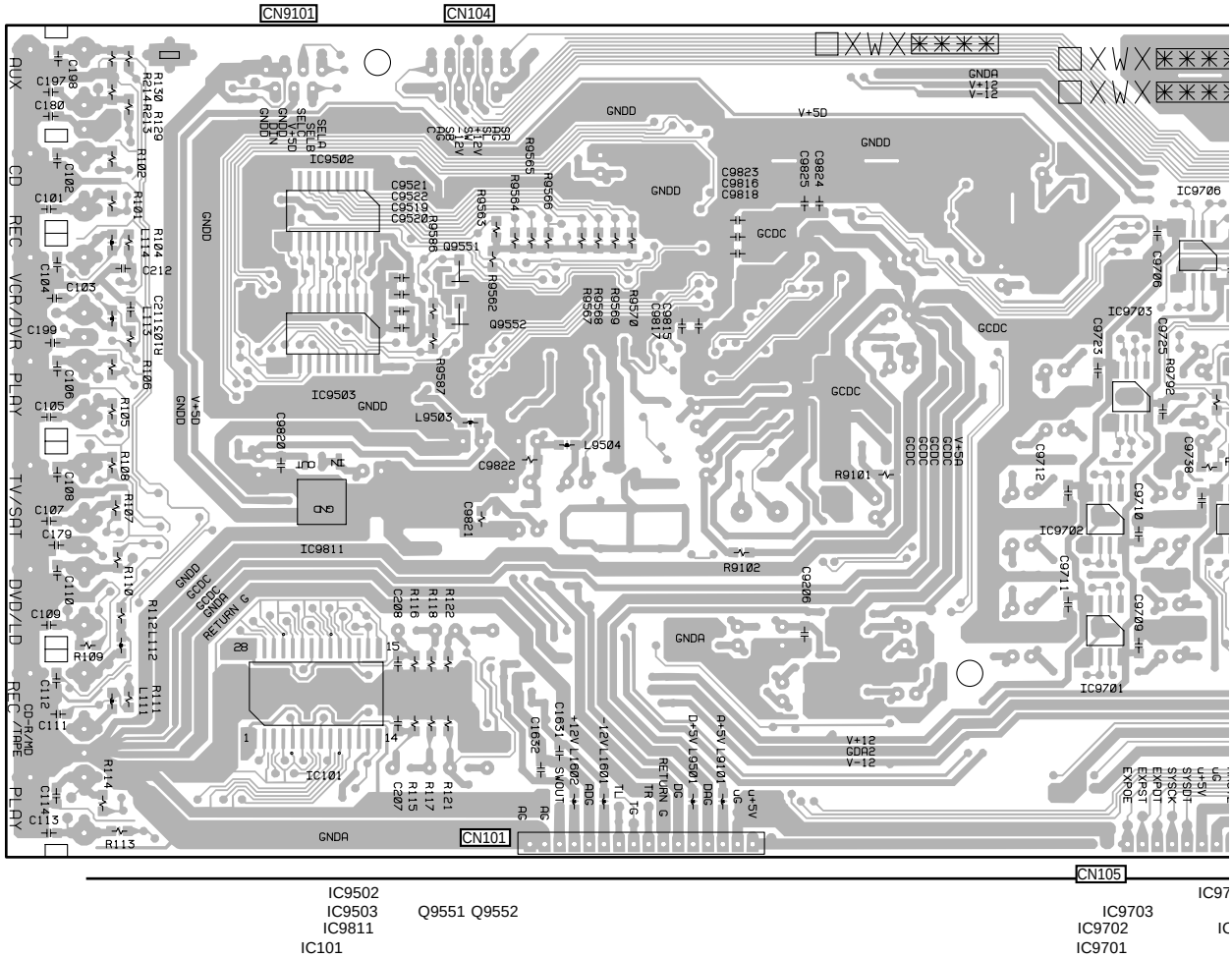
4.2 DD & INPUT ASSY



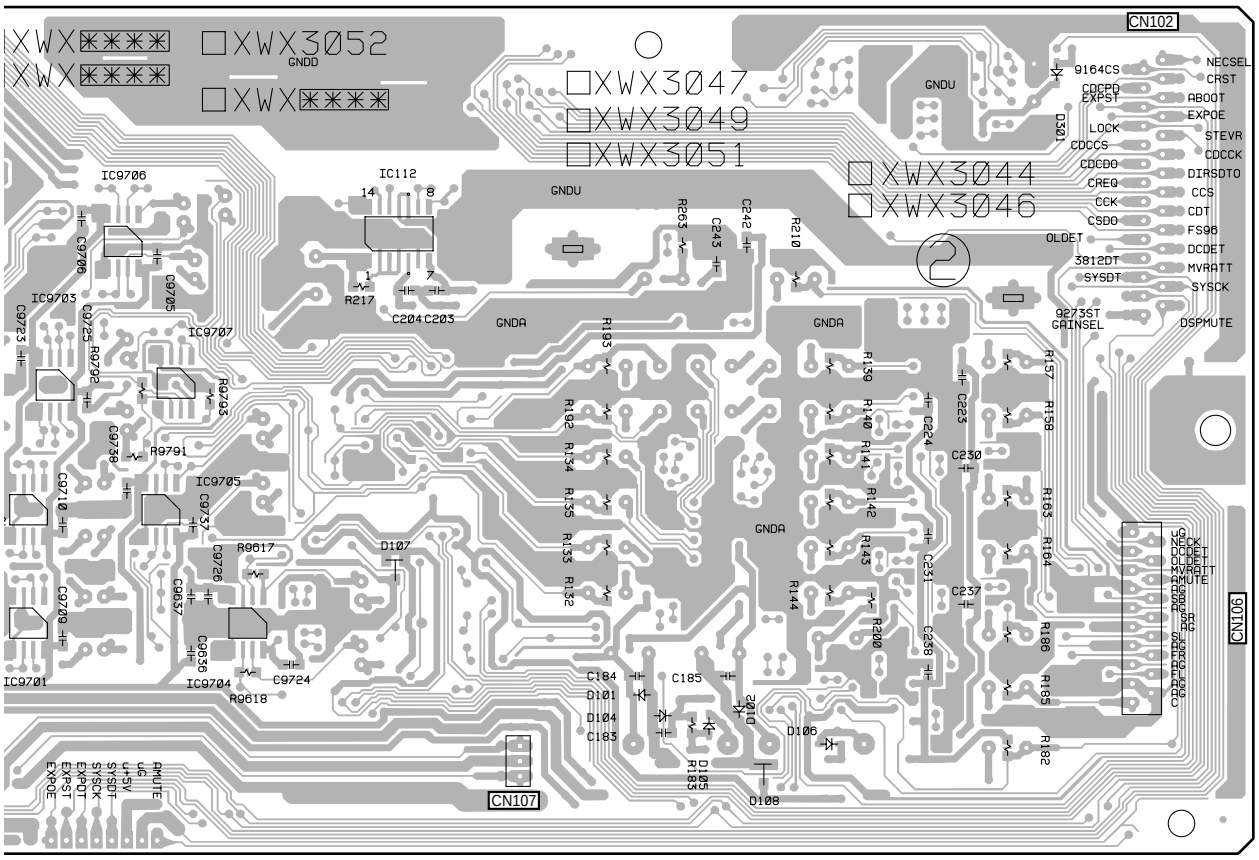


Note : The pin of function IC(IC101 TC9273F-007) can be checked from side-A by the through-hole round. The pin No. is printed on the side-A.

A D.D & INPUT ASSY

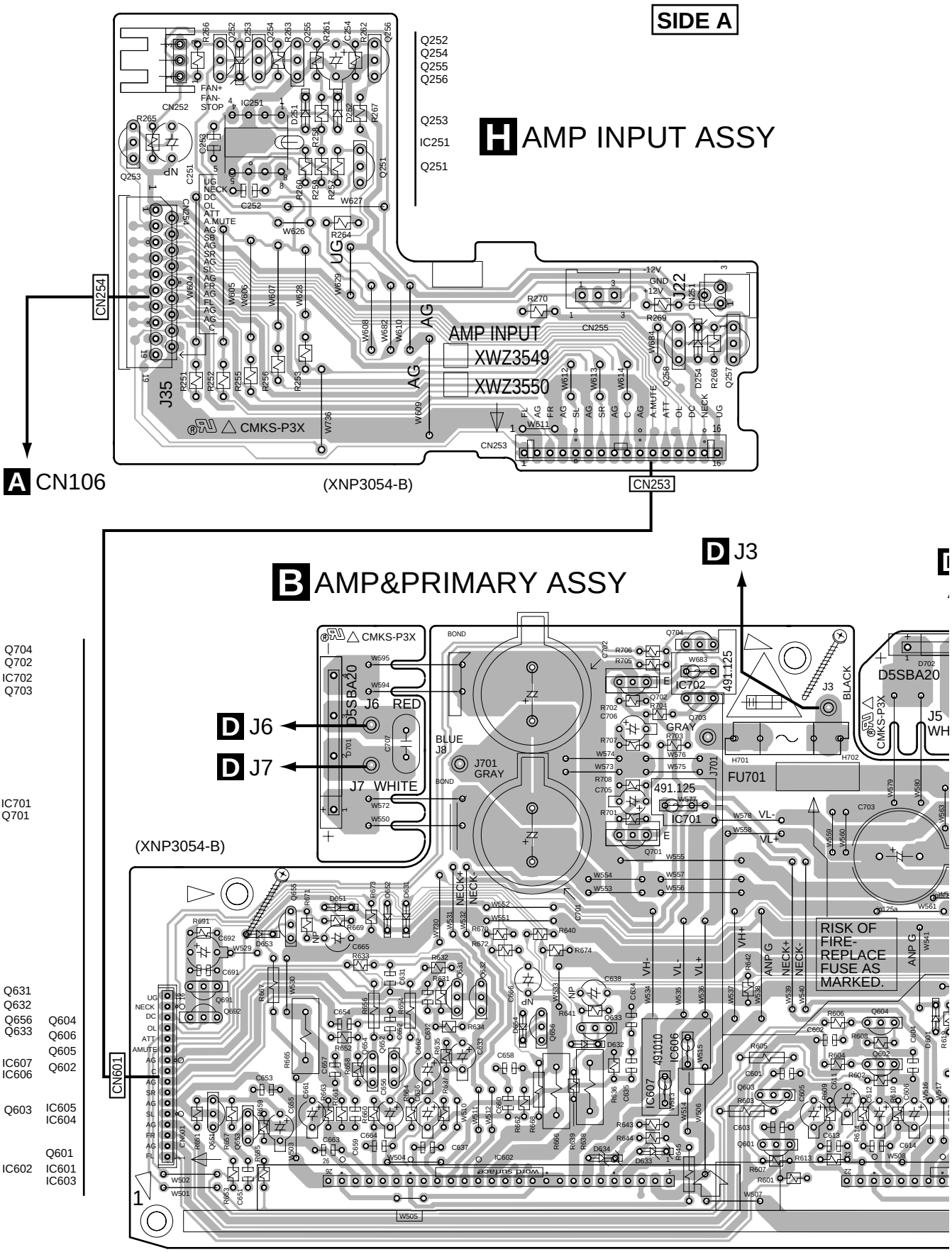


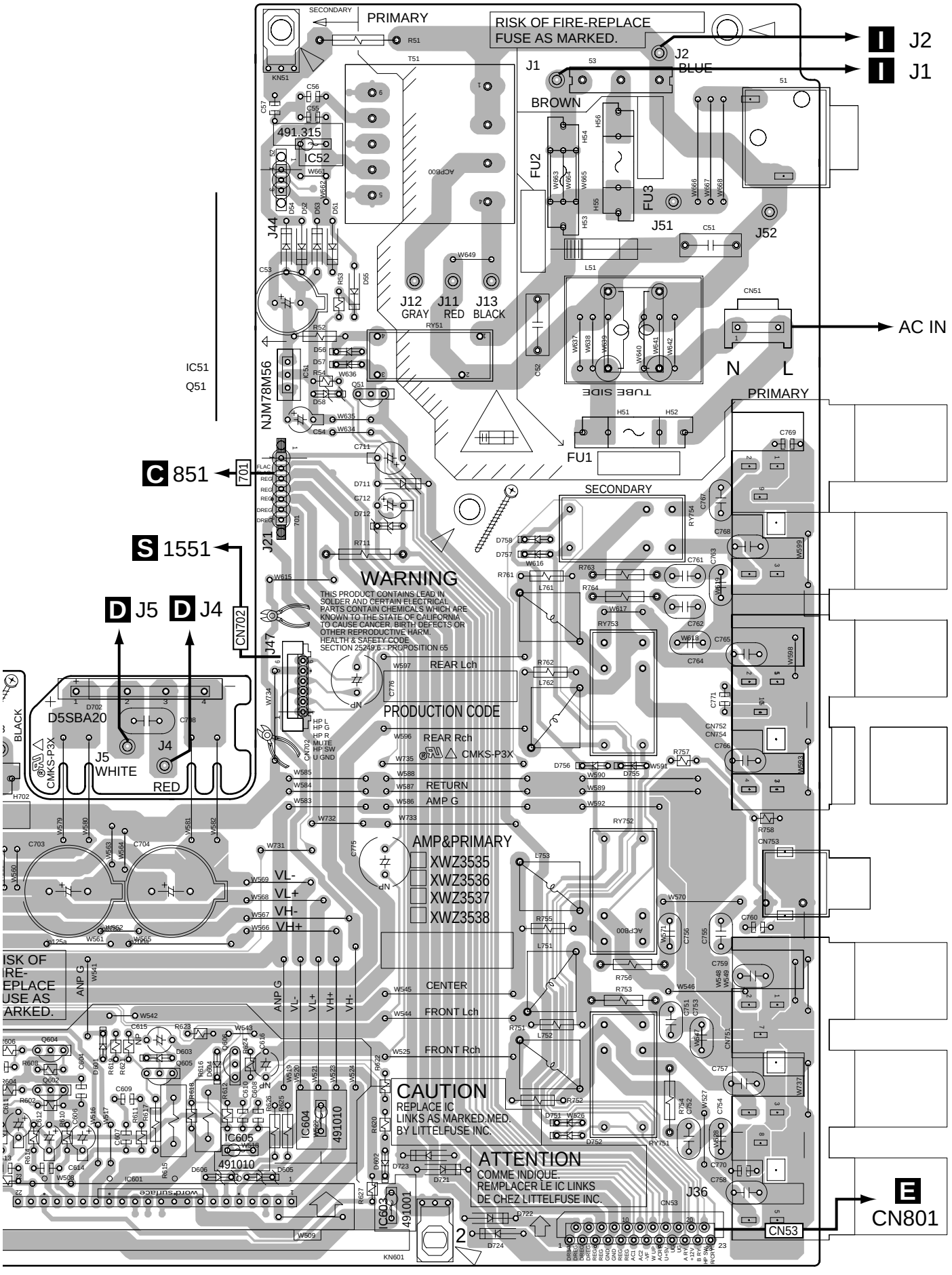
SIDE B



(XNP3056-C)

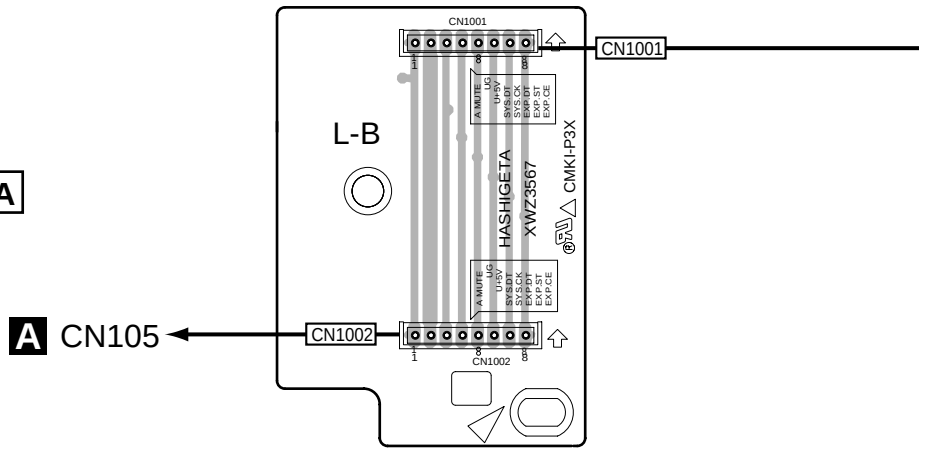
4.3 AMP & PRIMARY and AMP INPUT ASSYS




SECONDARY
PRIMARY
RISK OF FIRE-REPLACE FUSE AS MARKED.
J2 BLUE
J1
BROWN
491.315
IC52
FU2
FU3
J44
J51
J52
J12 GRAY
J11 RED
J13 BLACK
AC IN
N
L
IC51
Q51
NJM78M56
TUBE SIDE
FU1
PRIMARY
C 851
701
SECONDARY
S 1551
J21
WARNING
THIS PRODUCT CONTAINS LEAD IN SOLDER AND CERTAIN ELECTRICAL PARTS CONTAIN CHEMICALS WHICH ARE KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. HEALTH & SAFETY CODE SECTION 25249.6 - PROPOSITION 65
D J5
D J4
CN702
J47
REAR Lch
PRODUCTION CODE
REAR Rch
CMKS-P3X
RETURN
AMP G
D5SBA20
BLACK
J5 WHITE
J4 RED
AMP&PRIMARY
XWZ3535
XWZ3536
XWZ3537
XWZ3538
VL-
VL+
VH-
VH+
CENTER
FRONT Lch
FRONT Rch
CAUTION
REPLACE IC LINKS AS MARKED.MED. BY LITTELFUSE INC.
ATTENTION
COMME INDIQUE. REMPLACER LE IC LINKS DE CHEZ LITTELFUSE INC.
J36
E CN801
CN53
KN601

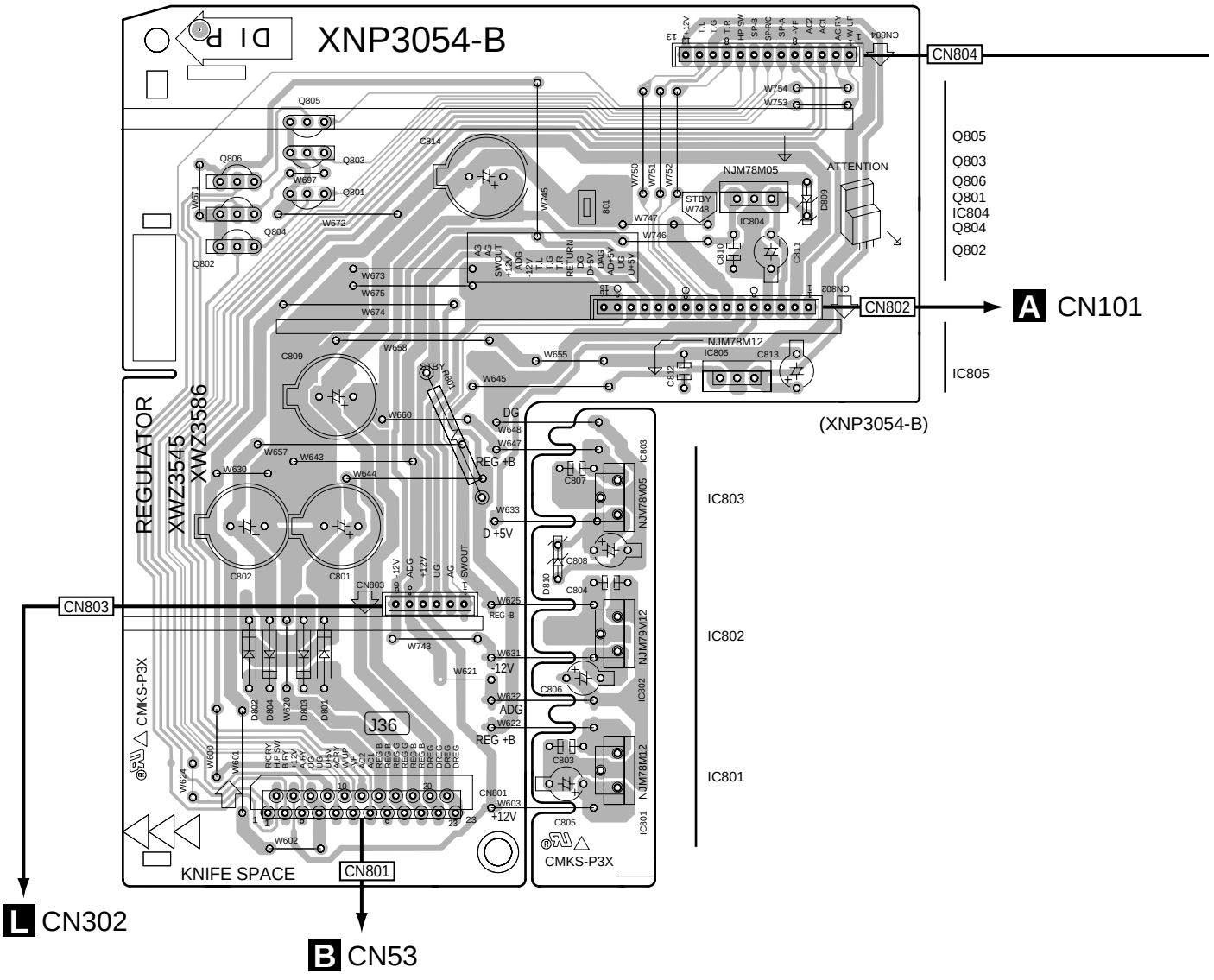
4.4 REGULATOR, HASHIGETA and KAWA ASSYS

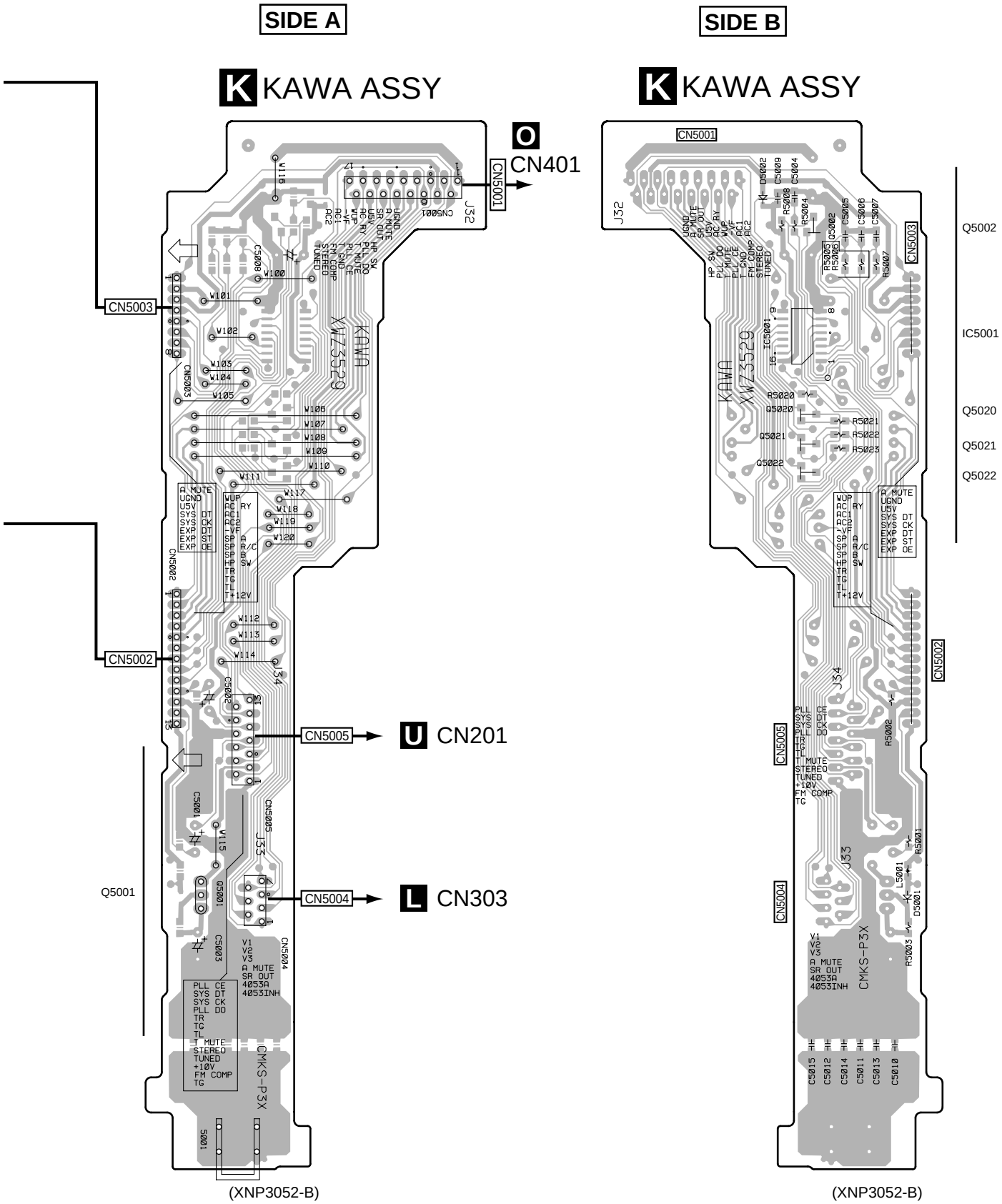
F HASHIGETA ASSY



(XNP3054-B)

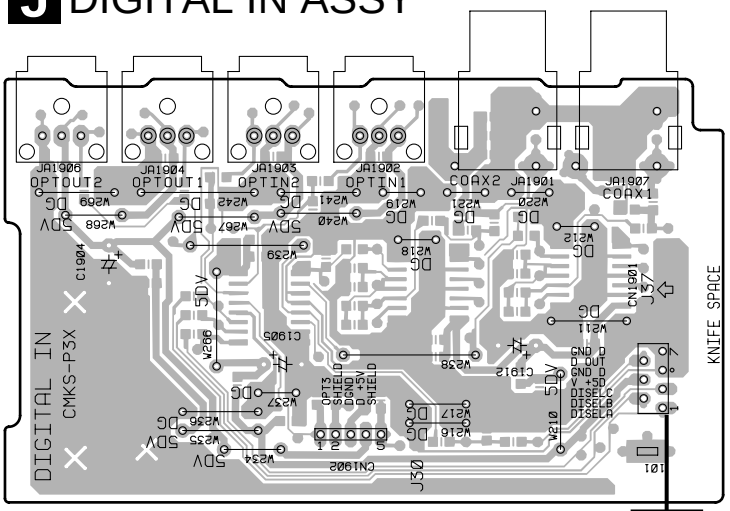
E REGULATOR ASSY




SIDE A
SIDE B
K KAWA ASSY
K KAWA ASSY
O
CN401
CN5003
CN5002
CN5005
U CN201
CN5004
L CN303
Q5001
CN5001
CN5003
CN5002
CN5005
CN5004
Q5002
IC5001
Q5020
Q5021
Q5022
(XNP3052-B)
(XNP3052-B)

4.5 BOARD TO BOARD, DIGITAL IN, VIDEO and 6CH IN ASSYS

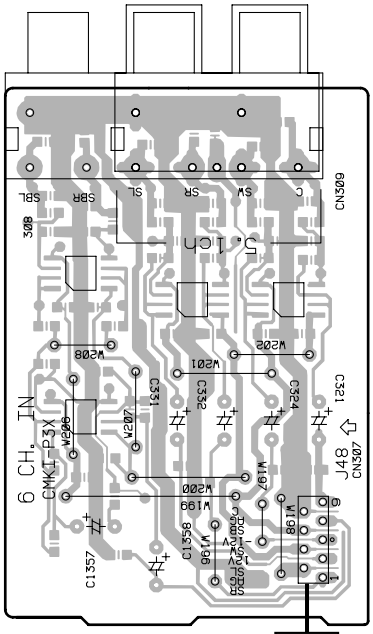
J DIGITAL IN ASSY



(XNP3052-B)

CN1901 → **A** CN9101

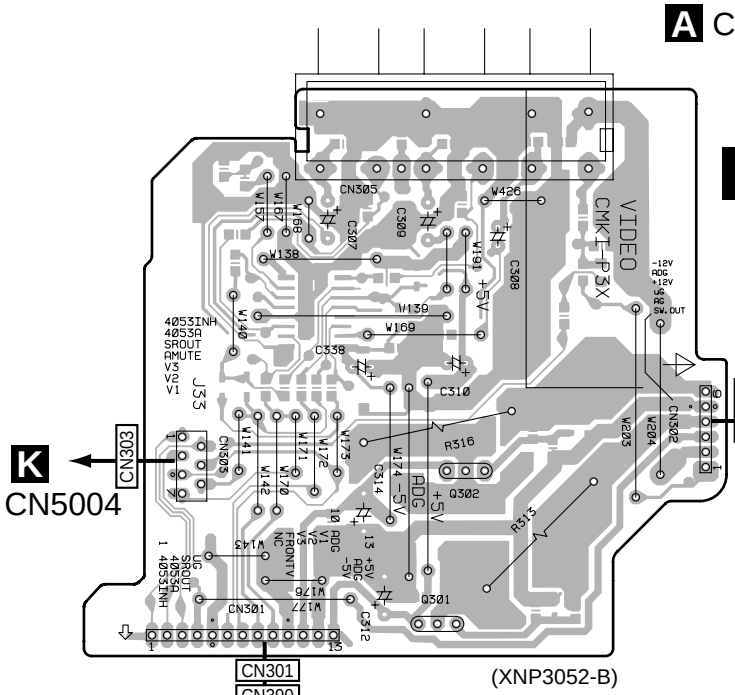
M 6CH IN ASSY



(XNP3052-B)

CN307 → **A** CN104

L VIDEO ASSY



CN303 → **K** CN5004

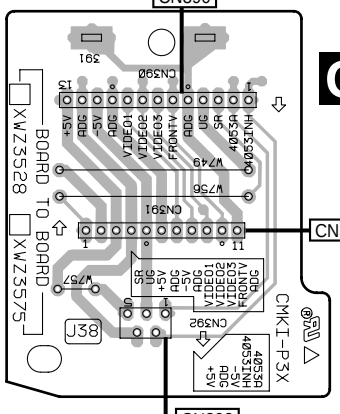
CN302 → **E** CN803

(XNP3052-B)

SIDE A

CN301 → CN390

G BOARD TO BOARD ASSY



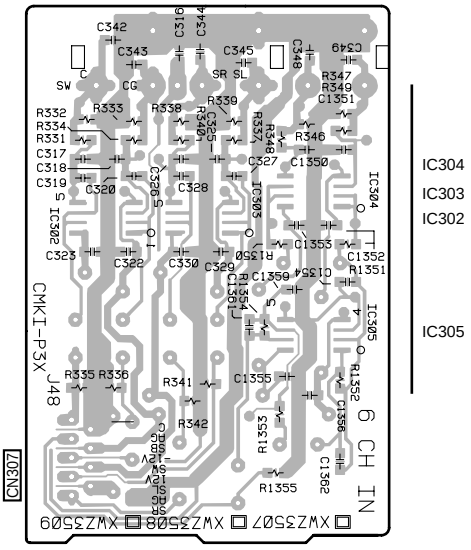
CN391 → **N** CN351

CN392 → **T** CN551

(XNP3054-B)

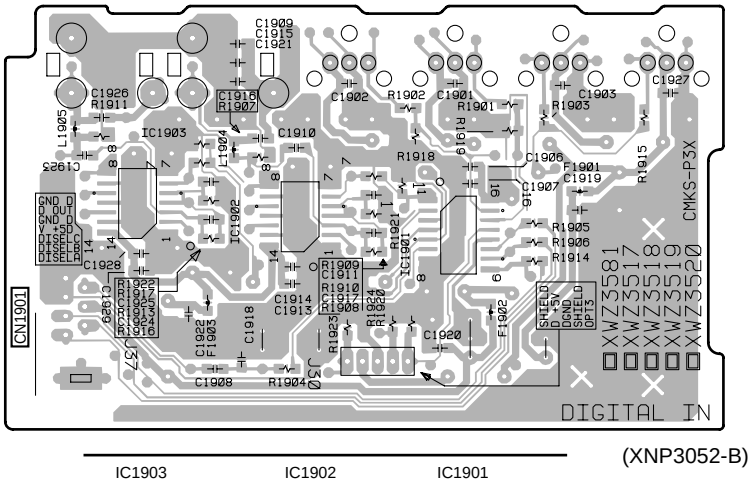
Note : The PCB of the BOARD TO BOARD ASSY is one-side patterned board.

M 6CH IN ASSY



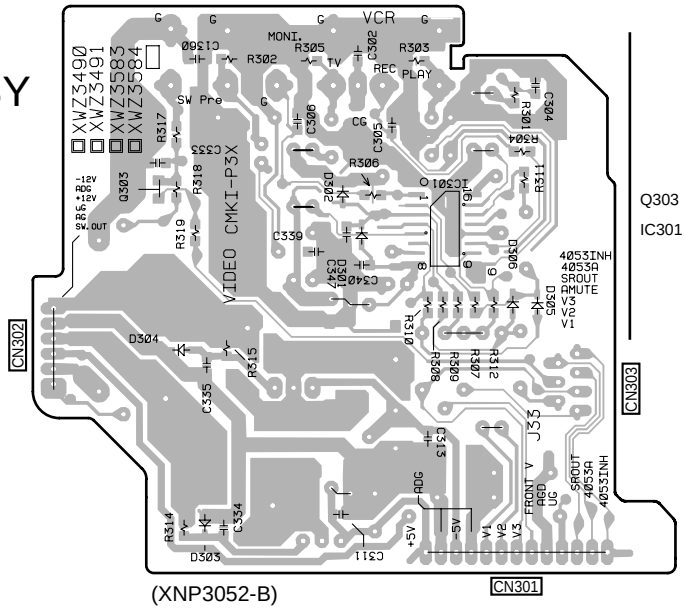
(XNP3052-B)

J DIGITAL IN ASSY



(XNP3052-B)

L VIDEO ASSY

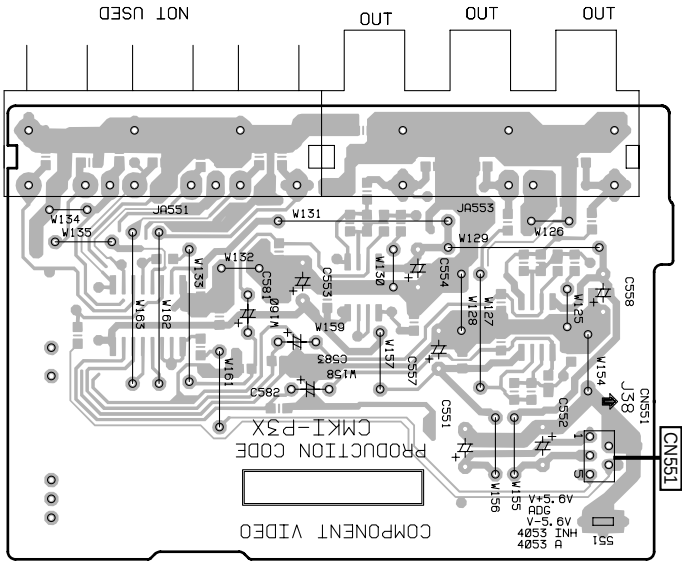


(XNP3052-B)

SIDE B

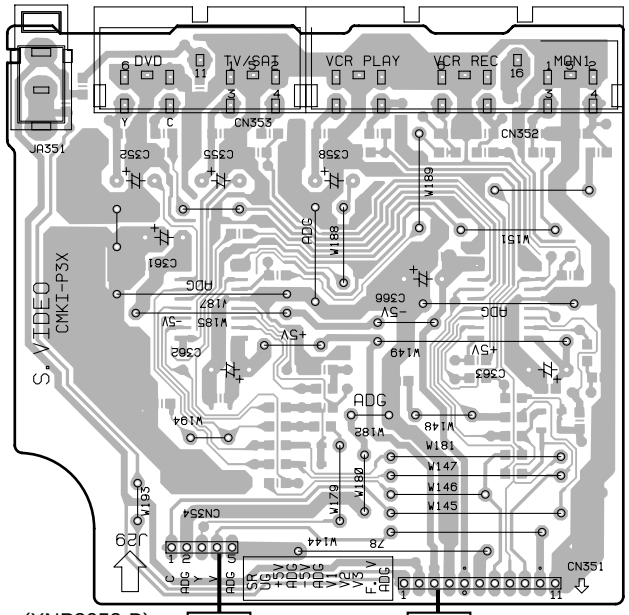
4.6 S. VIDEO, FRONT VIDEO and COMPONENT ASSYS

T COMPONENT ASSY



(XNP3052-B)

N S. VIDEO ASSY



(XNP3052-B)

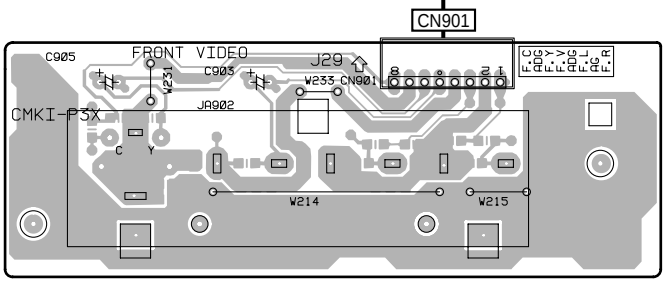
CN354 — R CN901

CN351 — G CN391

SIDE A

A CN107

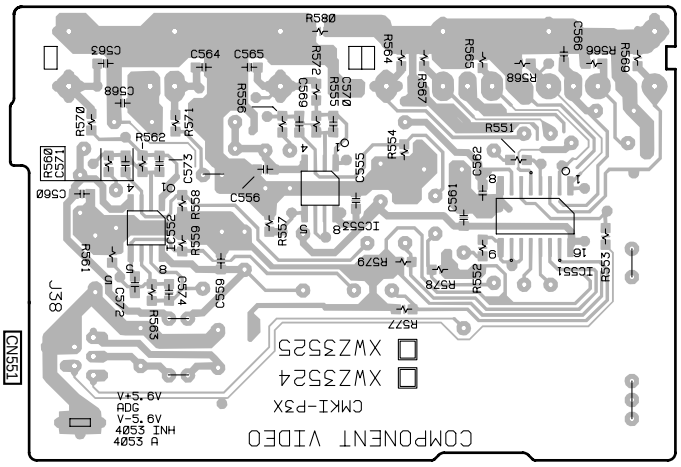
N CN354



(XNP3052-B)

R FRONT VIDEO ASSY

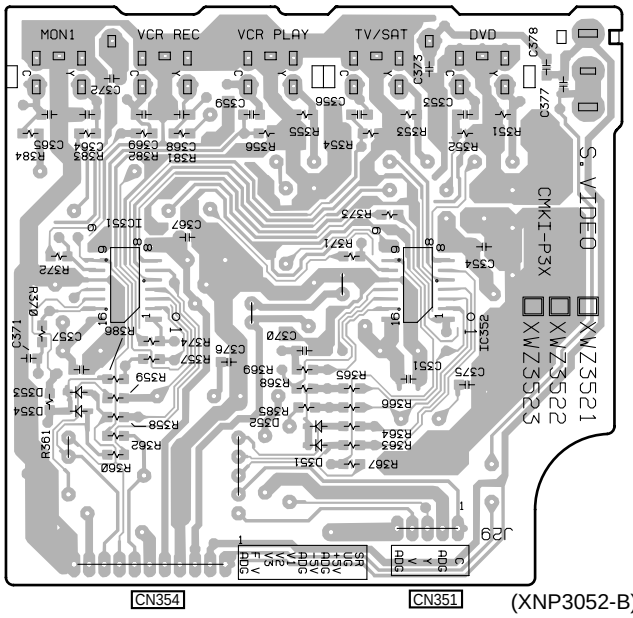
T COMPONENTASSY



(XNP3052-B)

IC552 IC551

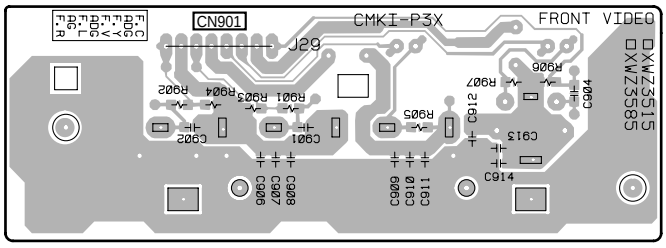
N S. VIDEO ASSY



IC351
IC352

SIDE B

(XNP3052-B)

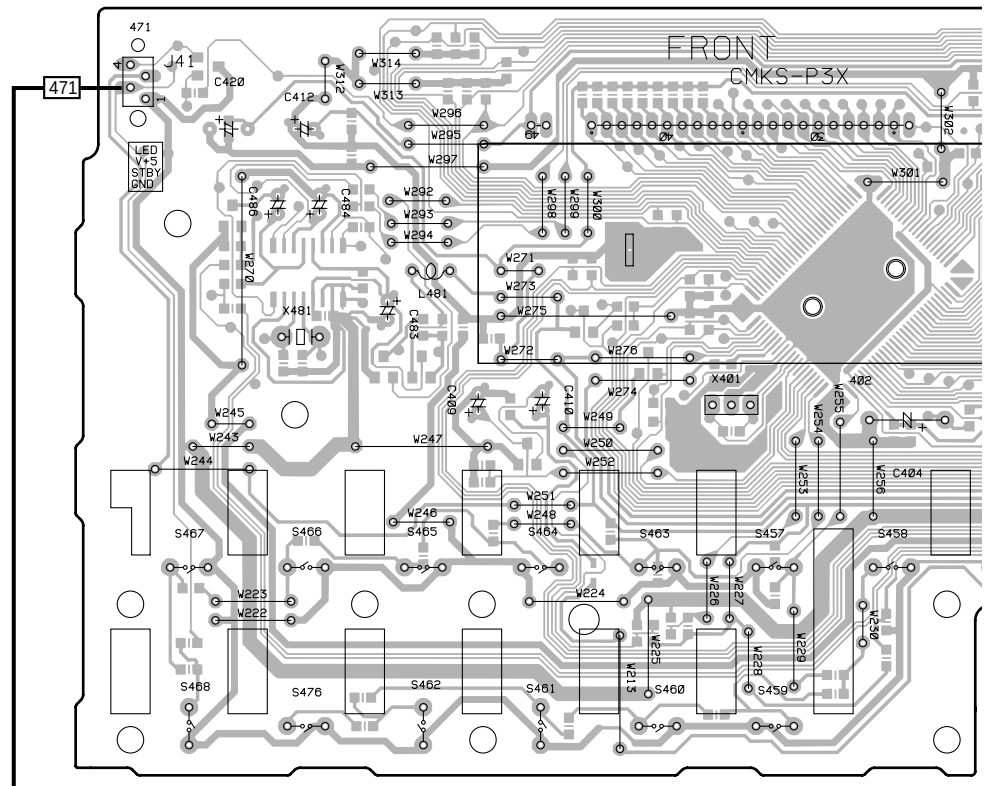


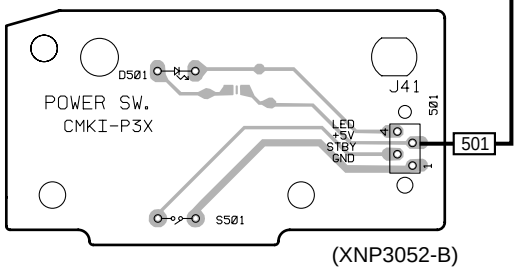
(XNP3052-B)

R FRONT VIDEO ASSY

4.7 FRONT, POWER SW, H.P. and R. ENCODER ASSYS

O FRONT ASSY



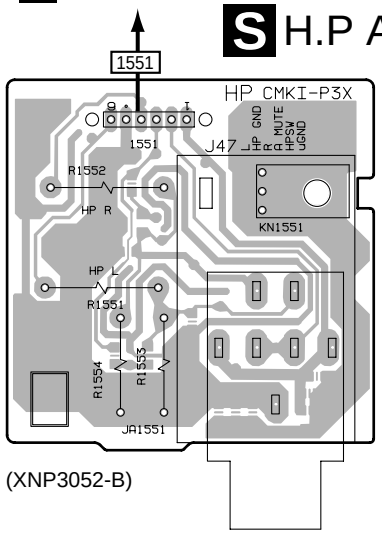


(XNP3052-B)

Q POWER SW ASSY

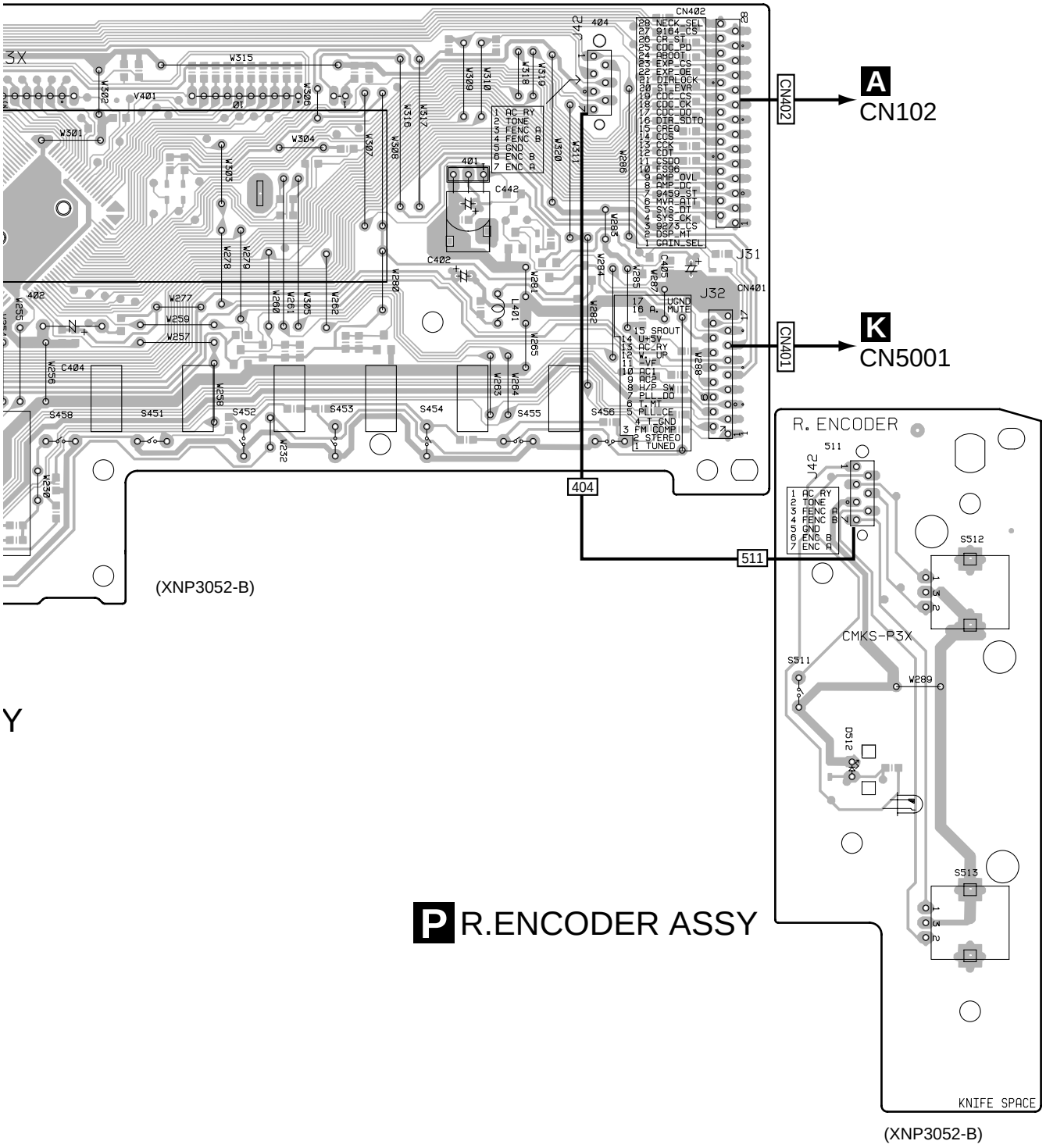
B CN702

S H.P ASSY



(XNP3052-B)

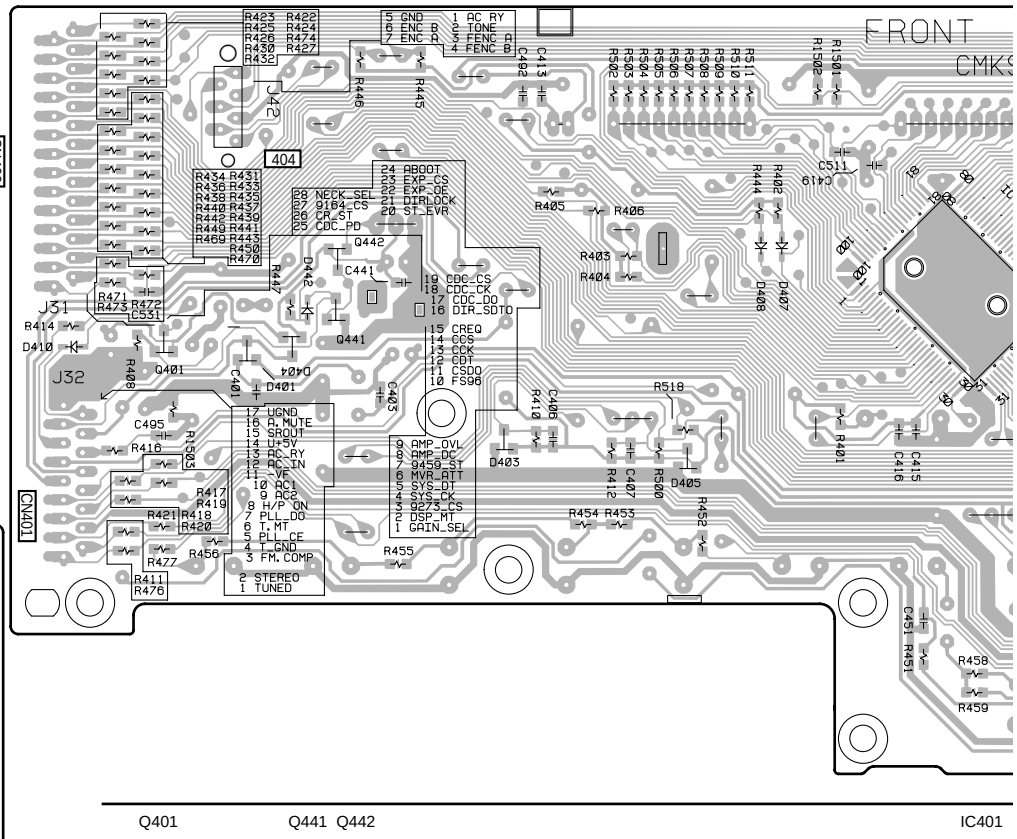
SIDE A



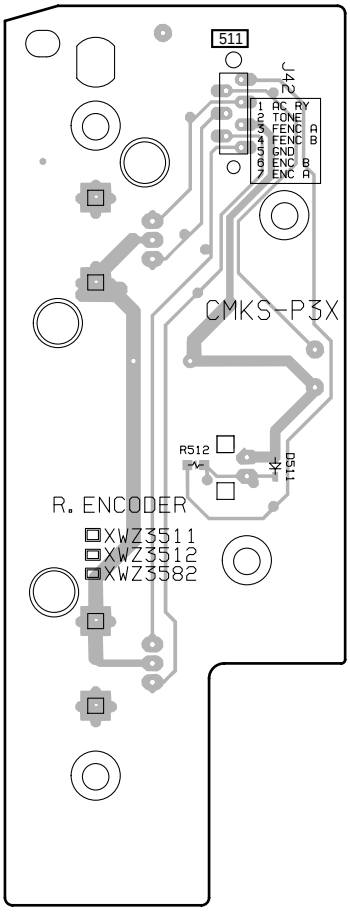
Y

P R.ENCODER ASSY

O FRONT ASSY

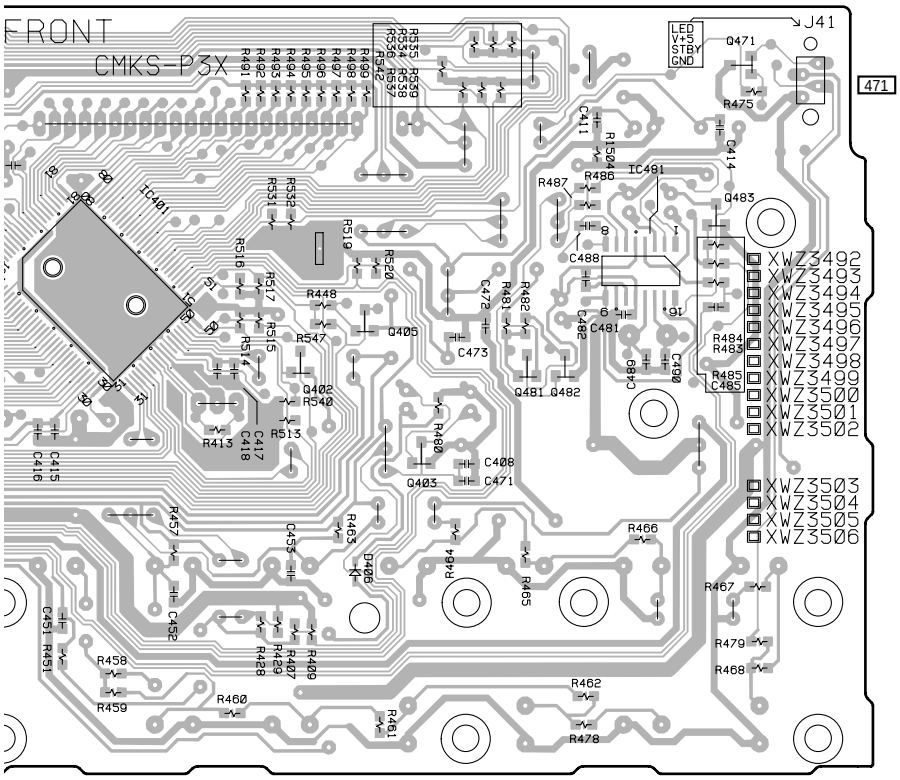


P R.ENCODER ASSY



(XNP3052-B)

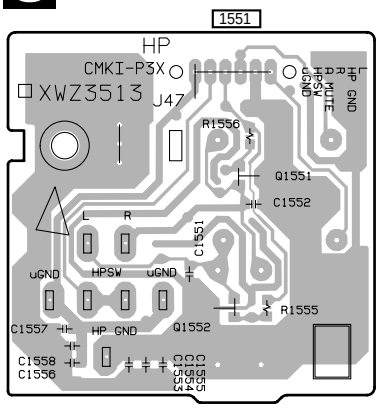
SIDE B



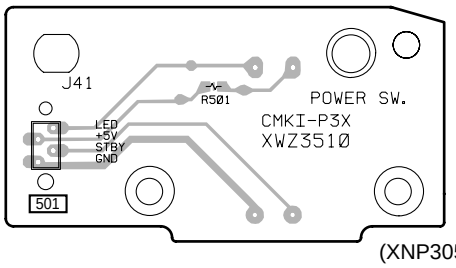
(XNP3052-B)

IC401 Q402 Q405 Q403 Q481 Q482 IC481 Q483 Q471

S H.P ASSY



(XNP3052-B)



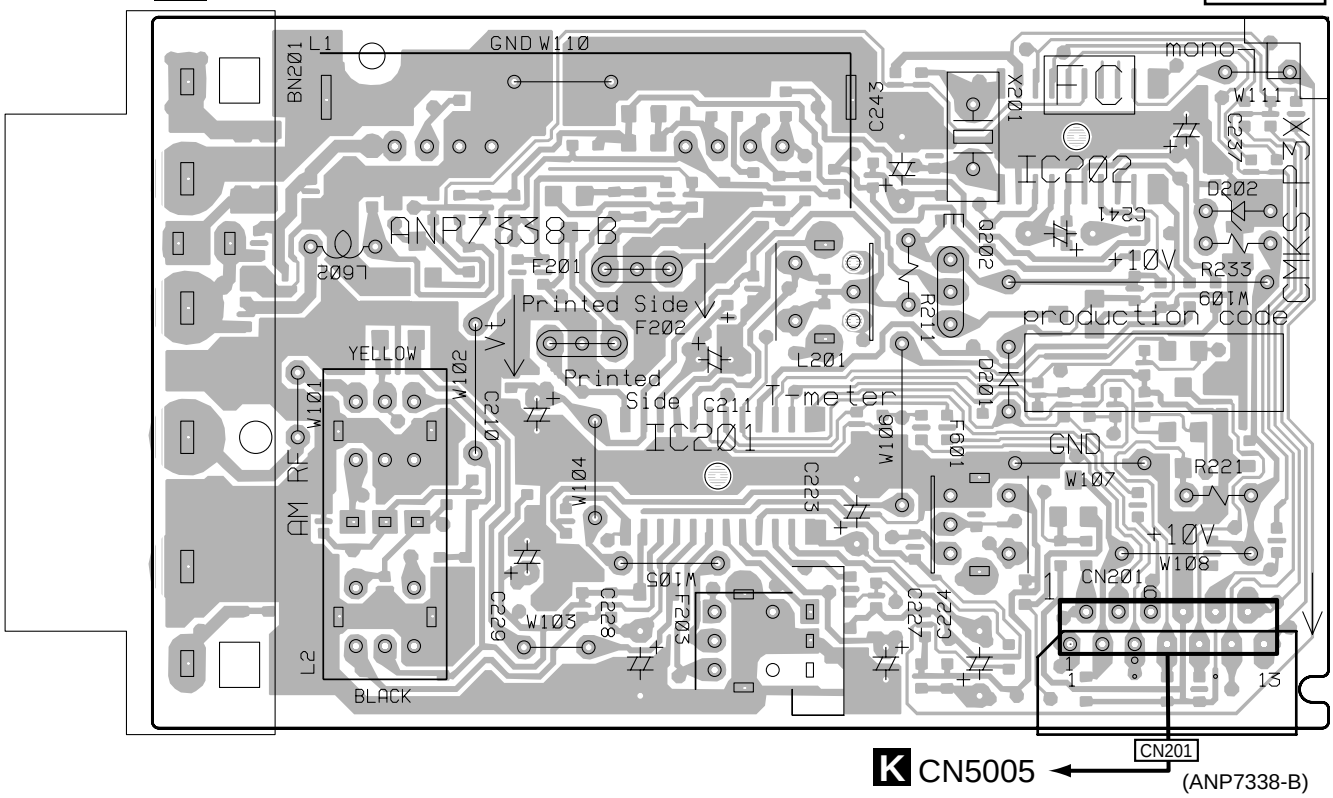
(XNP3052-B)

Q POWER SW ASSY

4.8 FM/AM TUNER MODULE

U FM/AM TUNER MODULE

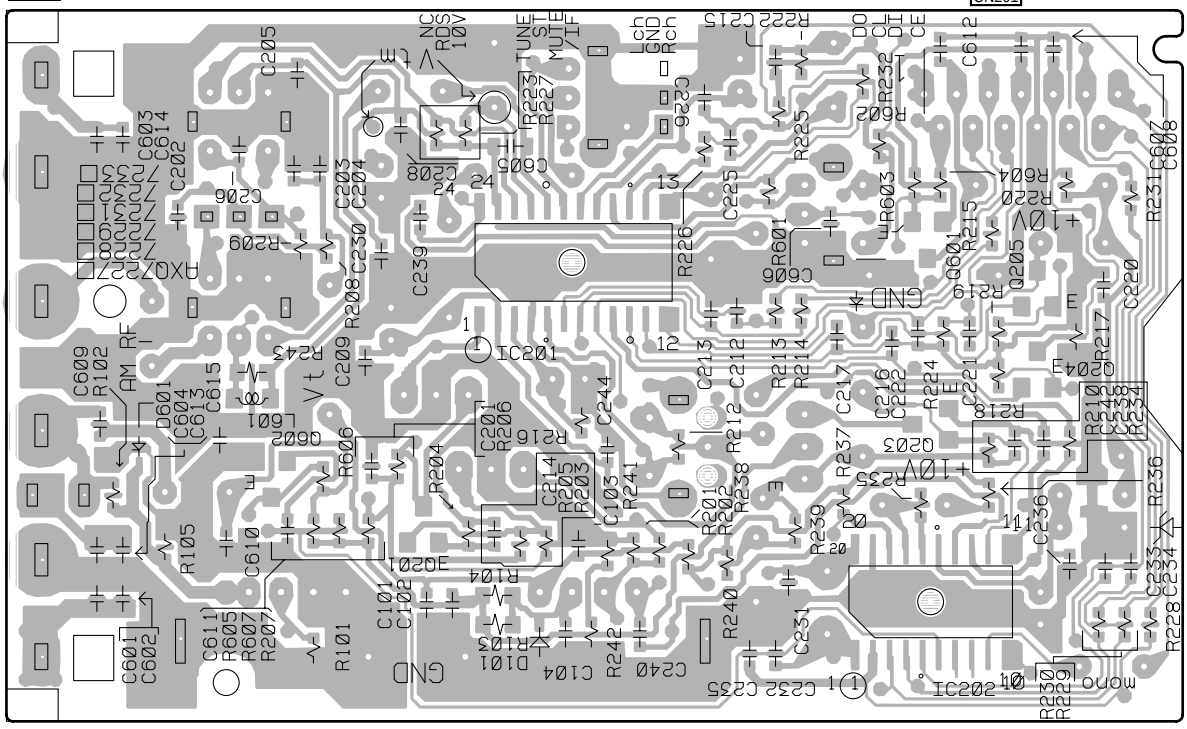
SIDE A



Q202

U FM/AM TUNER MODULE

SIDE B



Q201 IC201 Q203 IC202 Q205 Q204

5. PCB PARTS LIST

NOTES: ●*Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
●*The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
●*When ordering resistors, first convert resistance values into code form as shown in the following examples.*
Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).
560 Ω → 56 × 10¹ → 561 ..... RD1/4PU 5 6 1 J
47k Ω → 47 × 10³ → 473 ..... RD1/4PU 4 7 3 J
0.5 Ω → R50 ..... RN2H R 5 0 K
1 Ω → 1R0 ..... RS1P 1 R 0 K
Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).
5.62k Ω → 562 × 10¹ → 5621 ..... RN1/4PC 5 6 2 1 F

Mark	No.	Description	Part No.

LIST OF ASSEMBLIES

		D.D & INPUT ASSY	XWX3047
NSP		AMP&PS ASSY	XWK3056
		├AMP&PRIMARY ASSY	XWZ3536
		├TRANS2 ASSY	XWZ3557
NSP		├TRANS3 ASSY	XWZ3561
		├REGULATOR ASSY	XWZ3545
		├HASHIGETA ASSY	XWZ3567
		├BOARD TO BOARD ASSY	XWZ3528
		├AMP INPUT ASSY	XWZ3549
NSP		└TRANS1 ASSY	XWZ3553
NSP		COMPLEX ASSY	XWK3042
		├DIGITAL IN ASSY	XWZ3518
		├KAWA ASSY	XWZ3529
		├VIDEO ASSY	XWZ3583
		├6CH IN ASSY	XWZ3507
		├S. VIDEO ASSY	XWZ3522
		├FRONT ASSY	XWZ3497
		├R. ENCODER ASSY	XWZ3511
		├POWER SW ASSY	XWZ3510
		├FRONT VIDEO ASSY	XWZ3515
		├H.P. ASSY	XWZ3513
		└COMPONENT ASSY	XWZ3524
		FM/AM TUNER MODULE	AXQ7231

AMP&PS ASSY

OTHERS

	J 21	Jumper wired	D20PYY0715E
	J 6	Lead Wire Unit	DB215NB0

COMPLEX ASSY

OTHERS

	J 41	Jumper wired	D15A04-100-2651
	J 42	Jumper wired	D15A07-075-2651
	J 47	Jumper wired	D20PYY0630E

A D.D & INPUT ASSY

SEMICONDUCTORS

	IC9101	AK4586VQ
	IC301	BU4094BCF
	IC9501	CS493292
	IC103	M62446FP
	IC9201	NJM2100M
	IC9812	NJM2391DL1-25
	IC9811	NJM2391DL1-33
	IC102	NJU7312AM
	IC9601	NJU7313AM
	IC9504	PD8097A
	IC9505	TC74LVX244FT
	IC9502, IC9503	TC74VHC574F
	IC9506	TC74VHCT244AFT
	IC9507	TC7WU04FU
	IC101	TC9273F-007
	IC104-IC107, IC9701-IC9705	UPC4570G2
	IC9707	UPC4570G2
	Q107-Q112, Q9201, Q9202	2SC3326
	Q9101, Q9204, Q9607, Q9609	DTA124EK
	Q9610	DTA124EK
	Q9102, Q9203, Q9608	DTC124EK
	D9601, D9602	1SS181
	D105, D106, D301, D9921	1SS355
	D107, D108	DAN217
	D201, D202	RB501V-40
	D104	UDZS5.1B
	D101, D102	UDZS6.8B

COILS AND FILTERS

	L9101, L9501, L9504, L9811, L9812	ATL7002
	L111-L114, L1601, L1602	QTL1013
	L9102, L9103, L9502, L9503	QTL1013
	L9506, L9507	QTL1013

CAPACITORS

	C9510, C9511	CCSRCH100D50
	C101-C114, C121-C123	CCSRCH101J50
	C126-C128, C152-C154	CCSRCH101J50
	C197, C198, C207, C208	CCSRCH101J50
	C221, C222, C228, C229, C9160	CCSRCH101J50
	C9201, C9202	CCSRCH101J50
	C9101, C9102	CCSRCH220J50
	C235, C9117	CCSRCH221J50
	C9509	CCSRCH271J50
	C9530, C9731, C9735	CCSRCH331J50
	C9103, C9110, C9111, C9114, C9503	CCSRCH471J50
	C9505, C9507, C9513, C9515, C9518	CCSRCH471J50
	C9520, C9522, C9525, C9528, C9571	CCSRCH471J50
	C9611-C9614, C9625, C9639, C9729	CCSRCH471J50
	C9815, C9816	CCSRCH471J50
	C9707, C9708, C9721, C9722	CCSRCH820J50
	C130-C137, C146-C151, C305	CEAT100M50
	C9207, C9208, C9523, C9526	CEAT100M50
	C9105, C9106, C9108, C9116, C9516	CEAT101M10
	C9551, C9792, C9812, C9814	CEAT101M10

Mark	No.	Description	Part No.
	C9740		CEAT220M25
	C9205		CEAT221M6R3
	C9112, C9529, C9769, C9770		CEAT2R2M50
	C9713, C9714, C9727, C9728, C9739		CEAT330M25
	C9765-C9768		CEAT330M25
	C144, C145		CEAT3R3M50
	C117, C118, C225, C226		CEAT470M50
	C232, C233, C239		CEAT470M50
	C155, C156		CEAT471M10
	C115, C116, C234, C240		CEAT4R7M50
	C9203, C9204, C9615-C9618, C9811		CEAT4R7M50
	C9813		CEAT4R7M50
	C271, C9703, C9704, C9717, C9718		CKSRYB102K50
	C119, C120, C124, C125, C138		CKSRYB103K50
	C141, C171, C172, C179, C180		CKSRYB103K50
	C183, C199, C223, C224		CKSRYB103K50
	C230, C231, C237, C238, C304		CKSRYB103K50
	C9104, C9107, C9109, C9121, C9209		CKSRYB103K50
	C9502, C9504, C9506, C9508, C9512		CKSRYB103K50
	C9514, C9517, C9519, C9521, C9524		CKSRYB103K50
	C9527, C9531, C9584, C9636, C9637		CKSRYB103K50
	C9709-C9712, C9723-C9726		CKSRYB103K50
	C9737, C9738, C9817		CKSRYB103K50
	C140, C143, C1631, C1632		CKSRYB104K16
	C173, C174, C9113, C9115, C9126		CKSRYB104K16
	C9206, C9818		CKSRYB104K16
	C9701, C9702, C9715, C9716		CKSRYB222K50
	C9736		CKSRYB223K25
	C139, C142, C9626		CKSRYB223K50
	C236		CKSRYB472K50
	C184, C185, C9732		CKSRYB473K25
	C227, C9730		CKSRYF104Z25

RESISTORS

Mark	No.	Description	Part No.
	R9104		RS1/16S1802F
⚠	R174, R175		RS1LMF101J
	Other Resistors		RS1/16S□□□J

OTHERS

Mark	No.	Description	Part No.
	CN9101	7P FFC Connector	52044-0745
	CN104	9P FFC Connector	52044-0945
	CN106	19P FFC Connector	52045-1945
	CN102	28P FFC Connector	52045-2845
	JA101-JA104	4P Pin Jack	AKB7048
	CN107	Connector Post	B3B-PH-K
	CN101	16P Socket	KP200TA16L
	CN105	8P Socket	KP200TA8L
	101-103	PCB Binder	VEF1040
	X9501	(27.0MHz)	VSS1086
	X9101	(12.288MHz)	VSS1140

B AMP & PRIMARY ASSY

SEMICONDUCTORS

Mark	No.	Description	Part No.
⚠	IC603		AEK7009
⚠	IC701, IC702		AEK7020
⚠	IC604-IC607		AEK7022
	IC51		NJM78M56FA
⚠	IC601		PAC010A
⚠	IC602		PAC011A
	Q703		2SA1145
	Q702		2SA1837
	Q691, Q692		2SC1740S
	Q704		2SC1845
	Q605, Q606, Q633, Q655, Q656		2SC2240
	Q601-Q604, Q631, Q632		2SC2878
	Q651-Q654		2SC2878
	Q701		2SC4793
	Q51		KRC101M
	D56, D601-D604, D631, D632		1SS133
	D651-D654, D752, D756, D758		1SS133
⚠	D701, D702		D5SBA20(B)
	D605, D606, D633, D634		MTZJ16A
	D711		MTZJ22D
	D58		MTZJ5.1A
	D712		MTZJ5.1B
⚠	D51-D55, D721-D724		S5688G

COILS AND FILTERS

Mark	No.	Description	Part No.
⚠	L51		ATF7018
	L751-L753, L761, L762		ATH1004

SWITCHESANDRELAYS

Mark	No.	Description	Part No.
	RY751-RY754		XSR3002
⚠	RY51		XSR3003

CAPACITORS

Mark	No.	Description	Part No.
	C707, C708		ACG1005
⚠	C51, C52		ACG7020
	C703, C704		ACH7135
	C701, C702		ACH7137
	C607-C610, C634, C635		CCPUCH6R8K50
	C657-C660		CCPUCH6R8K50
	C615, C616, C638, C665, C666		CEANP2R2M50
	C775, C776		CEANP470M50
	C705, C706		CEAT100M2A
	C712		CEAT101M10
	C611, C612, C636, C661, C662		CEAT101M16
	C711		CEAT101M35
	C53		CEAT102M16
	C692		CEAT221M10
	C54		CEAT470M25
	C605, C606, C633, C655, C656		CEAT4R7M50
	C751, C752, C755, C761, C762		CFTYA104J50
	C601, C602, C631, C651, C652		CKPUYB102K50
	C691		CKPUYB102K50
	C603, C604, C632, C653, C654		CKPUYB331K50
	C55-C57		CKPUYF103Z25

RESISTORS

Mark	No.	Description	Part No.
⚠	R51		RCN1080
⚠	R52		RD1/2PM270J
⚠	R751, R752, R755, R761, R762		RD1/4PUF101J
⚠	R753, R754, R756, R763, R764		RS1LMF4R7J
⚠	R711		RS2LMF392J
⚠	R615, R616, R638, R665, R666		XCN3001
	Other Resistors		RD1/4PU□□□J

OTHERS

Mark	No.	Description	Part No.
	CN53	23P FFC Connector	52045-2345
	CN702	6P Jumper Connector	52147-0610
	CN753	1P Pin Jack	AKB7042
	CN752	Speaker Terminal 8P	AKE7074
	CN751	Speaker Terminal 6P	AKE7075
	51	AC Socket 1P	AKP1060
	H51-H54, H701, H702	Fuse Clip	AKR7001

Mark	No.	Description	Part No.
⚠	T51	Standby Transformer	ATT7057
	CN601	16P Plug	KM200TA16
	CN51	AC Code Socket	RKP1751
	KN51, KN601	Earth Metal Fitting	VNF1084
	701	7P Cable Holder	XKP3047

C TRANS2 ASSY

SEMICONDUCTORS

⚠	IC851-IC853		AEK7012

OTHERS

	851	7P Cable Holder	XKP3047

D TRANS3 ASSY

TRANS3 ASSY has no service part.

E REGULATOR ASSY

SEMICONDUCTORS

	IC803, IC804		NJM78M05FA
	IC801, IC805		NJM78M12FA
	IC802		NJM79M12FA
	Q801, Q803, Q805		KRA103M
	Q802, Q804, Q806		KRC102M
	D809, D810		MTZJ6.2A
⚠	D801-D804		S5688G

CAPACITORS

	C808, C811		CEAT101M10
	C805, C806, C813		CEAT101M16
	C801, C802		CEAT222M25
	C809		CEAT332M16
	C803, C804, C807, C810, C812		CKPUYF103Z25

OTHERS

	CN801	23P FFC Connector	52045-2345
	CN804	13P Plug	KM200TA13
	CN802	16P Plug	KM200TA16
	CN803	6P Plug	KM200TA6

F HASHIGETA ASSY

OTHERS

	CN1001, CN1002	8P Plug	KM200TA8

G BOARD TO BOARD ASSY

OTHERS

	CN392	5P FFC Connector	52045-0545
	CN391	11P Plug	KM200TA11
	CN390	13P Plug	KM200TA13

H AMP INPUT ASSY

OTHERS

	CN254	19P FFC Connector	52044-1945
	CN253	16P FFC Connector	KP200TA16L

I TRANS1 ASSY

TRANS1 ASSY has no service part.

Mark	No.	Description	Part No.

J DIGITAL IN ASSY

SEMICONDUCTORS

	IC1901		TC74ACT151F
	IC1902, IC1903		TC74HCU04AF

COILS AND FILTERS

	F1901-F1903		DTF1067
	L1904, L1905		QTL1013

CAPACITORS

	C1918		CCSRCH221J50
	C1907, C1914, C1928		CCSRCH271J50
	C1911, C1925		CCSRCH470J50
	C1916, C1926		CCSRCH471J50
	C1904, C1905, C1912		CEAT101M10
	C1915		CKSRYB102K50
	C1906, C1910, C1913, C1919, C1920		CKSRYB103K50
	C1923, C1929		CKSRYB103K50
	C1902, C1903, C1908, C1909		CKSRYB104K25
	C1921, C1922		CKSRYB104K25

RESISTORS

	Other Resistors		RS1/16S□□□J

OTHERS

	CN1901	7P FFC Connector	52045-0745
	JA1904	Opt. Link Out 12MB/S	JFJ3000-010020
	JA1902	Opt. Link In 12MB/S	JFJ4000-010020
	JA1901, JA1907	1P Pin Jack	VKB1077

K KAWA ASSY

SEMICONDUCTORS

	IC5001		BU4094BCF
	Q5001		2SC1740S
	Q5020-Q5022		DTC124EK
	Q5002		DTC143EK
	D5001, D5002		1SS355

COILS AND FILTERS

	L5001		QTL1013

CAPACITORS

	C5004-C5007		CCSRCH101J50
	C5012		CCSRCH471J50
	C5001, C5002		CEAT100M50
	C5003		CEAT101M16
	C5009		CKSRYB103K50
	C5011		CKSRYB104K16
	C5010		CKSRYF105Z10

RESISTORS

	Other Resistors		RS1/16S□□□J

OTHERS

	CN5004	7P FFC Connector	52044-0745
	CN5005	13P FFC Connector	52044-1345
	CN5001	17P FFC Connector	52044-1745
	CN5002	13P Socket	KP200TA13L
	CN5003	8P Socket	KP200TA8L
	5001	Screw Plate	VNE1948

Mark	No.	Description	Part No.

L VIDEO ASSY

SEMICONDUCTORS

	IC301		NJM2296M
	Q302		2SA1515
	Q303		2SC3326
	Q301		2SC3377
	D301, D302, D305, D306		1SS355
	D303, D304		UDZS6.2B

CAPACITORS

	C347		CCSRCH470J50
	C307-C310, C312, C314, C338		CEAT470M25
	C1360, C302		CKSRYB103K50
	C339, C340		CKSRYB104K25
	C304-C306		CKSRYB221K50
	C333		CKSRYB331K50
	C311, C313		CKSRYB473K25

RESISTORS

⚠	R313, R316		RS3LMF390J
	Other Resistors		RS1/16S□□□J

OTHERS

	CN303	7P FFC Connector	52044-0745
	CN305	6P pin Jack	AKB7123
	CN301	13P socket	KP200TA13L
	CN302	6P Socket	KP200TA6L

M 6CH IN ASSY

SEMICONDUCTORS

	IC302, IC303		NJM4558MD

CAPACITORS

	C319, C320, C327, C328		CCSRCH101J50
	C342-C345		CCSRCH101J50
	C321, C324, C331, C332		CEAT4R7M50
	C316, C322, C323, C329, C330		CKSRYB103K50
	C317, C318, C325, C326		CKSRYB221K50

RESISTORS

	Other Resistors		RS1/16S□□□J

OTHERS

	CN307	9P FFC Connector	52044-0945
	CN309	4P pin Jack	AKB7087

N S. VIDEO ASSY

SEMICONDUCTORS

	IC351, IC352		NJM2296M
	D351-D354		1SS355

CAPACITORS

	C375, C376		CCSRCH470J50
	C352, C355, C358, C361-C363		CEAT470M25
	C366		CEAT470M25
	C372, C373, C378		CKSRYB103K50
	C351, C353, C354, C356, C357		CKSRYB104K25
	C359, C367		CKSRYB104K25
	C364, C365, C368-C371		CKSRYB221K50

Mark	No.	Description	Part No.

RESISTORS

	Other Resistors		RS1/16S□□□J

OTHERS

	CN353	Min DIN Socket	AKP7020
	CN352	Min DIN Socket	AKP7043
	CN354	Connector Post	B5B-PH-K
	CN351	11P Socket	KP200TA11L
	JA351	Remote Control Jack	RKN1004

O FRONT ASSY

SEMICONDUCTORS

	IC401		PDG268B
	Q401, Q402, Q442, Q471		DTA124EK
	Q403, Q441		DTC143EK
	D406, D410, D442		1SS355
	D403, D405		DAN217
	D401, D404		DAP202K
	D407, D408		RB501V-40

COILS AND FILTERS

	L401		LFEA2R2J

SWITCHES AND RELAYS

	S451-S468, S476		ASG1051

CAPACITORS

	C420	(220µF/35V)	ACH7101
	C404	(0.22F/5.5V)	ACH7132
	C511		CCSRCH471J50
	C442		CEAL470M10
	C402		CEAT221M6R3
	C409, C410		CEAT2R2M50
	C412		CEAT470M50
	C405		CEAT471M6R3
	C451-C453, C472, C492, C495		CKSRYB102K50
	C401, C403, C411, C419, C441		CKSRYB103K50
	C531		CKSRYB103K50
	C408, C416, C418, C471		CKSRYB104K16
	C406, C407		CKSRYB473K16

RESISTORS

	Other Resistors		RS1/16S□□□J

OTHERS

	471	4P Cable Holder	51063-0405
	404	7P Cable Holder	51063-0705
	CN401	17P FFC Connector	52044-1745
	CN402	28P FFC Connector	52044-2845
	401	Remote Receiver Unit	GP1U27X
	V401	FL Tube	XAV3013
	X401	(7.2MHz)	ASS7039

P R. ENCODER ASSY

SWITCHES AND RELAYS

	S511		ASG1051
	S513		XSX3005
	S512		XSX3006

OTHERS

	511	7P Cable Holder	51063-0705

Mark	No.	Description	Part No.

Q POWER SW ASSY

SEMICONDUCTORS

	D501		BR3371XJ30A

SWITCHES AND RELAYS

	S501		ASG1051

RESISTORS

	Other Resistors		RS1/16S□□□J

OTHERS

	501	4P Cable Holder	51063-0405

R FRONT VIDEO ASSY

CAPACITORS

	C903, C905		CEAL470M25
	C908, C911, C914		CKSRYB103K50
	C904, C906, C909, C912		CKSRYB104K25
	C901, C902		CKSRYB221K50
	C907, C910, C913		CKSRYB471K50

RESISTORS

	Other Resistors		RS1/16S□□□J

OTHERS

	JA902	Front Pin Jack 4P	AKX7014

S H.P. ASSY

SEMICONDUCTORS

	Q1551, Q1552		2SC3326

CAPACITORS

	C1554, C1557		CCSRCH471J50
	C1553, C1556		CKSRYB103K50
	C1555, C1558		CKSRYB104K16
	C1551, C1552		CKSRYB223K50

RESISTORS

⚠	R1553, R1554		RS1LMF471J
⚠	R1551, R1552		RS2LMF331J
	Other Resistors		RS1/16S□□□J

OTHERS

	1551	6P Cable Holder	51048-0600
	JA1551	Headphone Jack	RKB1014
	KN1551	Earth Metal Fitting	VNF1084

T COMPONENT ASSY

SEMICONDUCTORS

	IC551		TC74HC4053AF
	IC552, IC553		TK15420M

CAPACITORS

	C551-C554, C557, C558		CEAT101M10
	C555, C556, C559-C562, C566		CKSRYB103K50
	C568		CKSRYB103K50

RESISTORS

	Other Resistors		RS1/16S□□□J

OTHERS

	CN551	5P FFC Connector	52045-0545
	JA553	3P RCA Jack	AKB7124
	JA551	6P RCA Jack	AKB7128

U FM/AM TUNER MODULE

SEMICONDUCTORS

	IC201		BA1451F
	IC202		LC72131MD
	Q201, Q204, Q205		2SC2412K
	Q202		DTA124ES
	Q203		DTC124EK
	D201		1SS133
	D202		MTZJ5.1C

COILS AND FILTERS

	L201		ATE7003
	F202		ATF-107
	F201		ATF-119
	F203		ATF7026

CAPACITORS

	C206		CCSRCH100D50
	C212, C213, C226, C233–C235		CCSRCH101J50
	C240		CCSRCH101J50
	C231, C232		CCSRCH150J50
	C223		CEAT100M50
	C229		CEAT101M10
	C224		CEAT1R0M50
	C227		CEAT220M25
	C241		CEAT2R2M50
	C243		CEAT330M16
	C228		CEAT3R3M50
	C237		CEAT470M10
	C211		CEJA1R0M50
	C210		CEJA470M16
	C204,C238,C602		CKSRYB102K50
	C101,C102,C208,C220,C239		CKSRYB103K50
	C242,C601		CKSRYB103K50
	C216,C217,C225		CKSRYB153K50
	C201,C205,C209,C214,C230		CKSRYB223K50
	C236,C603		CKSRYB223K50
	C221		CKSRYB224K10
	C202,C222		CKSRYB473K16
	C215		CKSRYB681K50

RESISTORS

	R211		RD1/4PU221J
	R221		RD1/4PU222J
	R233		RD1/4PU391J
	R243		RS1/10S0R0J
	R103		RS1/10S331J
	R104		RS1/10S391J
	Other Resistors		RS1/16S□□□J

OTHERS

	CN201	13P FFC Connector	52044-1345
	BN201	4P Terminal	AKA7003
		SHIELD CASE T	ANK7072
		SHIELD CASE B	ANK7073
	X201	(7.2000MHz)	ASS1093
		FM FRONTEND	AXF7003
		AM RF TUNING BLOCK	AXX7071

6. ADJUSTMENT

■ AM Tuner Section

• There is no adjustment in the AM tuner.

■ FM Tuner Section

• Set the mode selector to FM BAND.
• Connect the wiring as shown in Fig. 1.

Note : Even if the TUNER MODULE is disconnected, other functions can operate.

[ANT. INPUT SIGNAL]
• Frequency : 98 MHz
• Modulation : OFF
• Input Level : 80 dBμV

Step No.	Adjustment Title	Adjustment point	Measurement point	Adjustment value	Adjustment State
1	T-METER Adjustment	L201	IC201 Pin 21/Pin23	0 ± 50mV	Adjust L201 so that the DC voltage between Pin 21 and Pin 23 of IC201 (Test point "Vtm") gets within 0 ± 50mV.

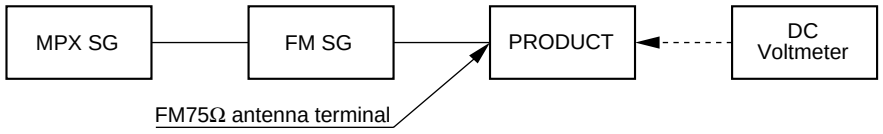


Fig.1 Adjustment Wiring Diagram

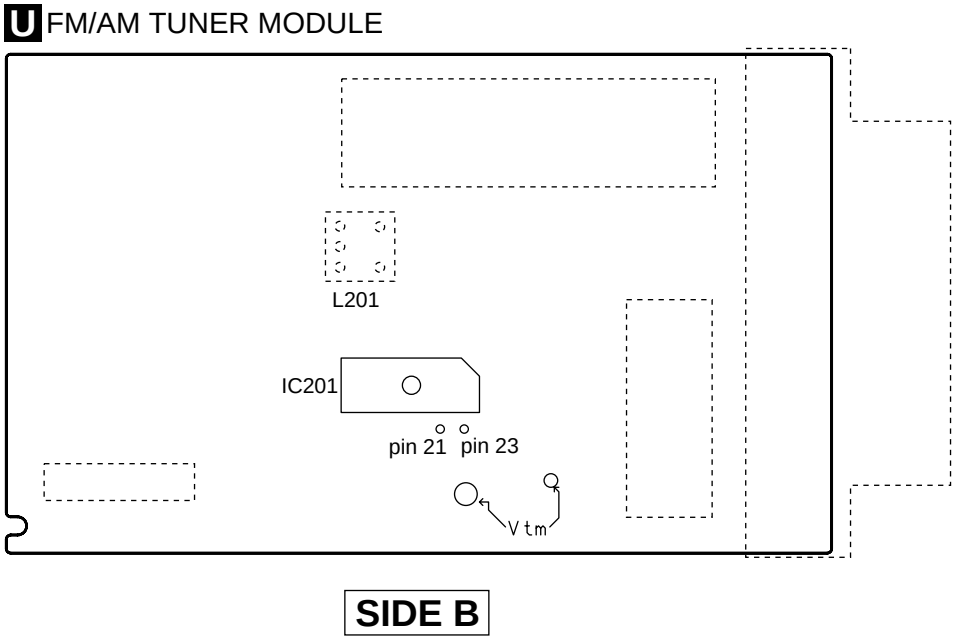
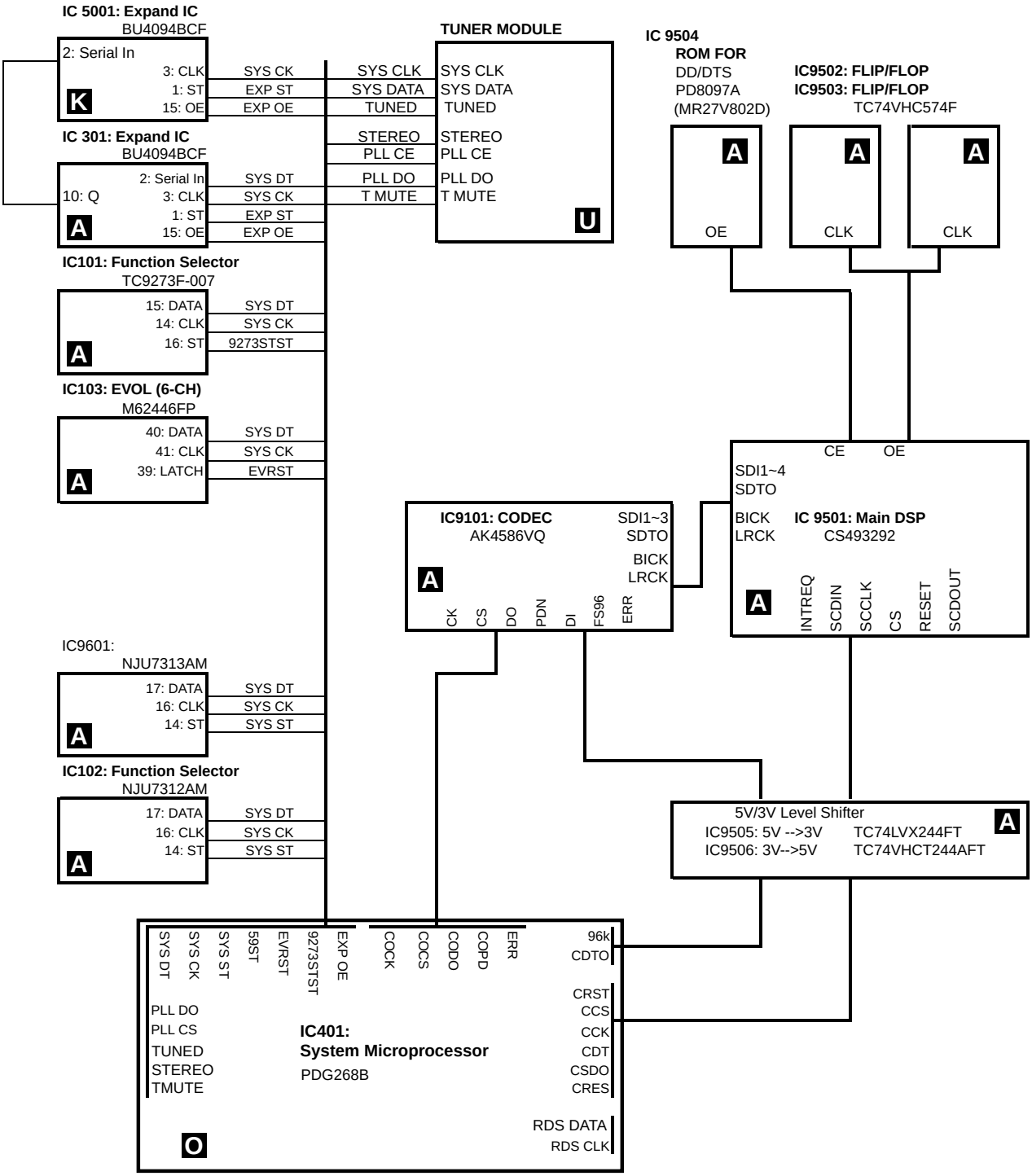


Fig.2 Adjustment Point

7. GENERAL INFORMATION

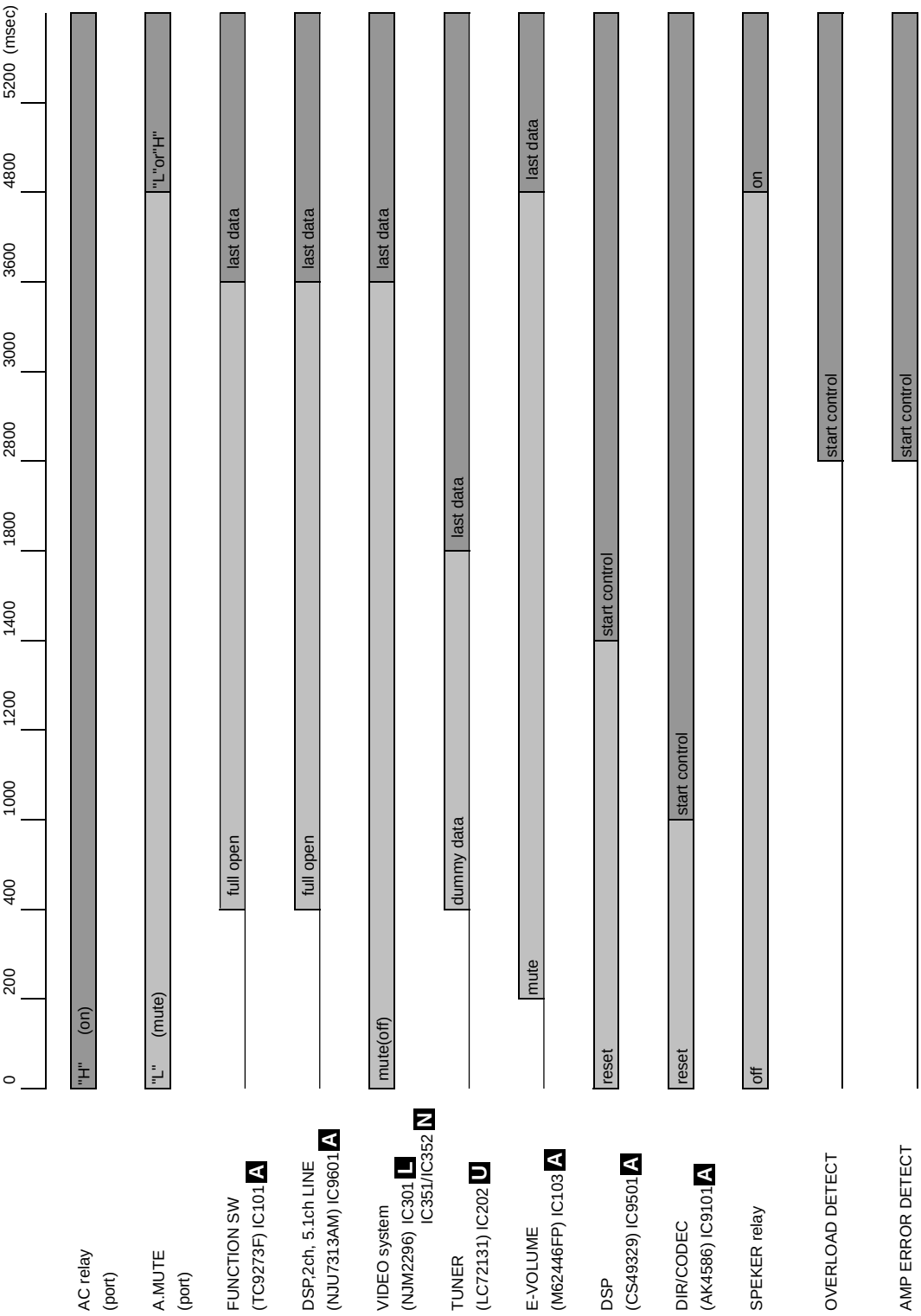
7.1 DIAGNOSIS

7.1.1 U-COM BLOCKDIAGRAM

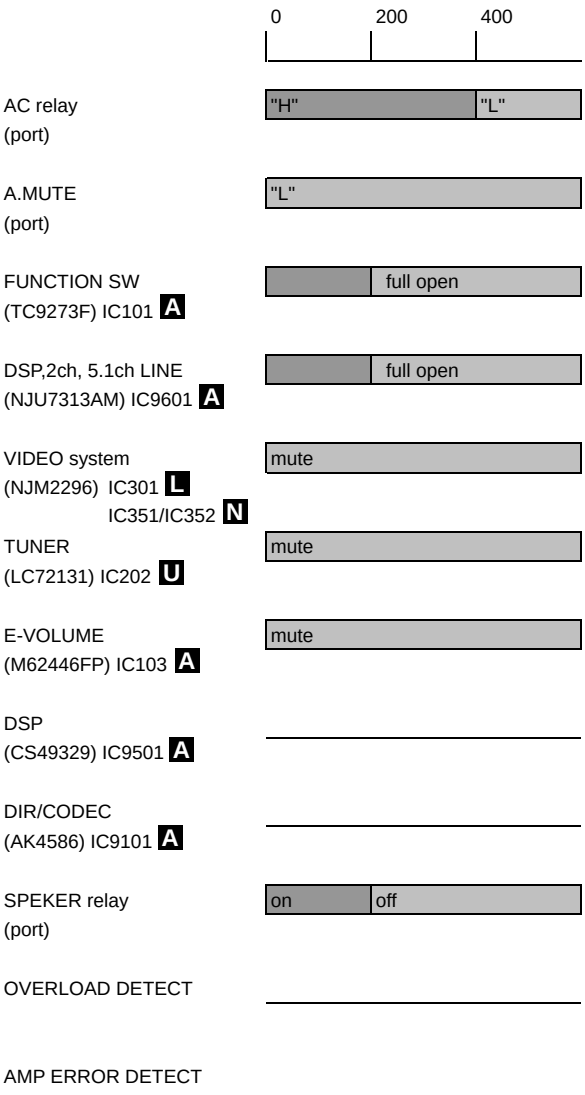


7.1.2 POWER ON AND OFF SEQUENCE

■ **POWER ON SEQUENCE**



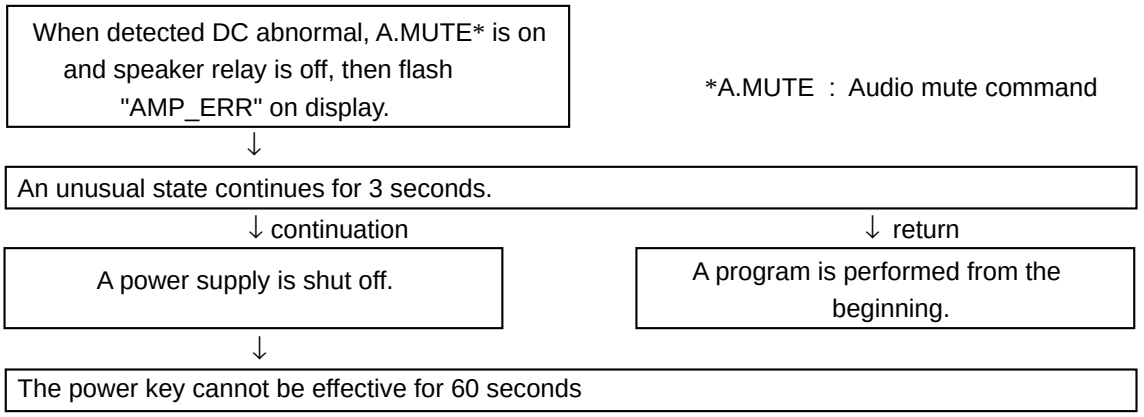
■ POWER OFF SEQUENCE



7.1.3 PROTECTION CIRCUIT

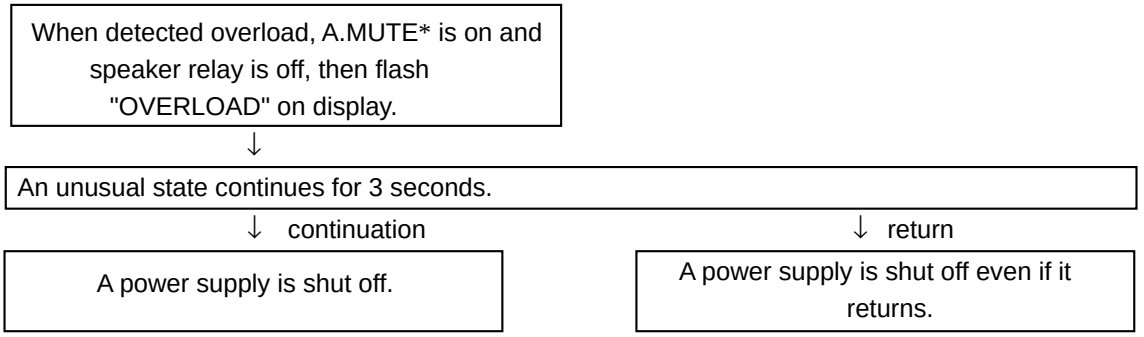
1. DC abnormal detection

It processes more preferentially than overload detection.


When detected DC abnormal, A.MUTE* is on and speaker relay is off, then flash "AMP_ERR" on display.
*A.MUTE : Audio mute command
An unusual state continues for 3 seconds.
continuation
return
A power supply is shut off.
A program is performed from the beginning.
The power key cannot be effective for 60 seconds

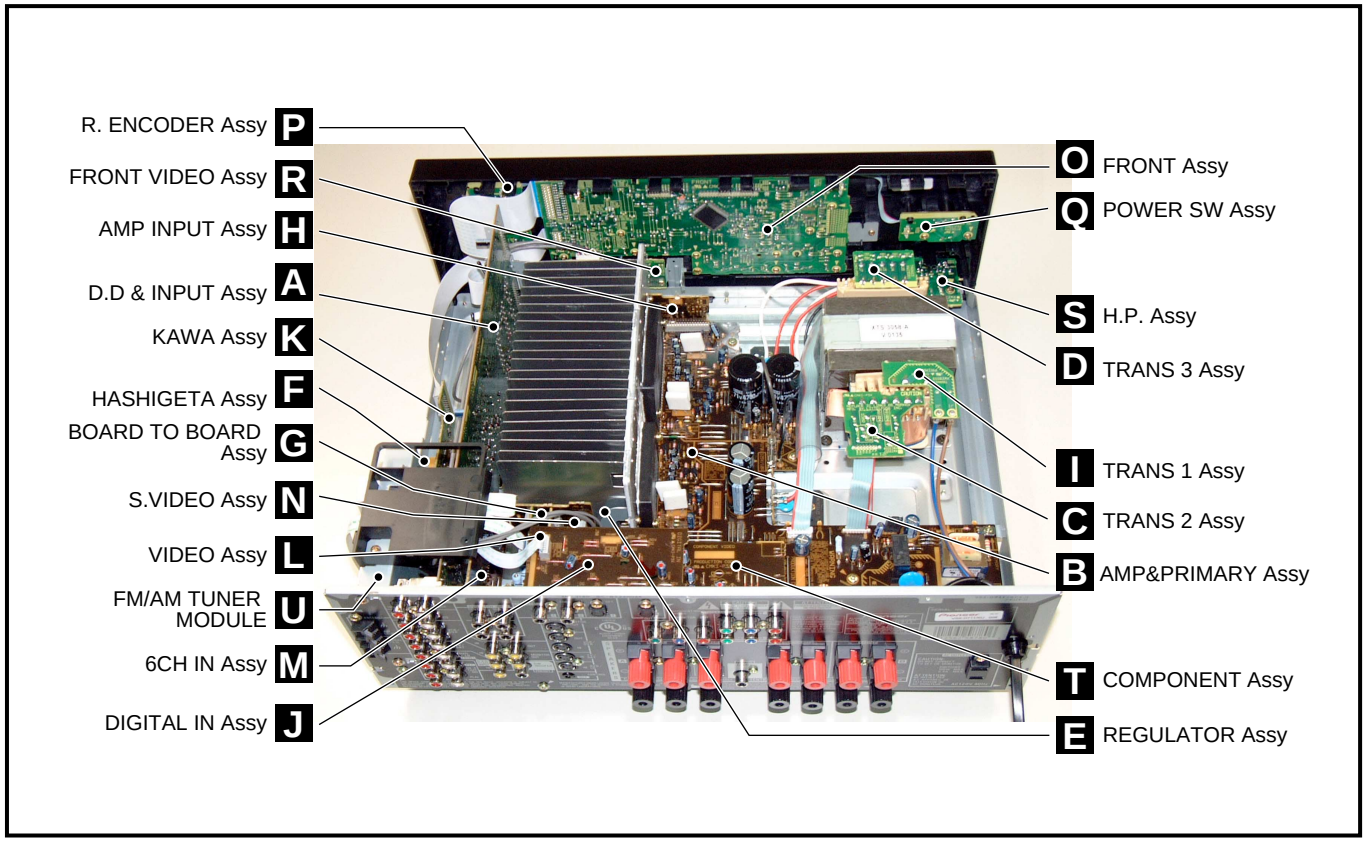
If the AC plug is pulled off within 60 sec, and then it is plugged in again, the unit will be reset for 60 sec.

2. Overload detection


When detected overload, A.MUTE* is on and speaker relay is off, then flash "OVERLOAD" on display.
An unusual state continues for 3 seconds.
continuation
return
A power supply is shut off.
A power supply is shut off even if it returns.

7.1.4 PCB LOCATION

■ PCB Location



7.2 PARTS

7.2.1 IC

• The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

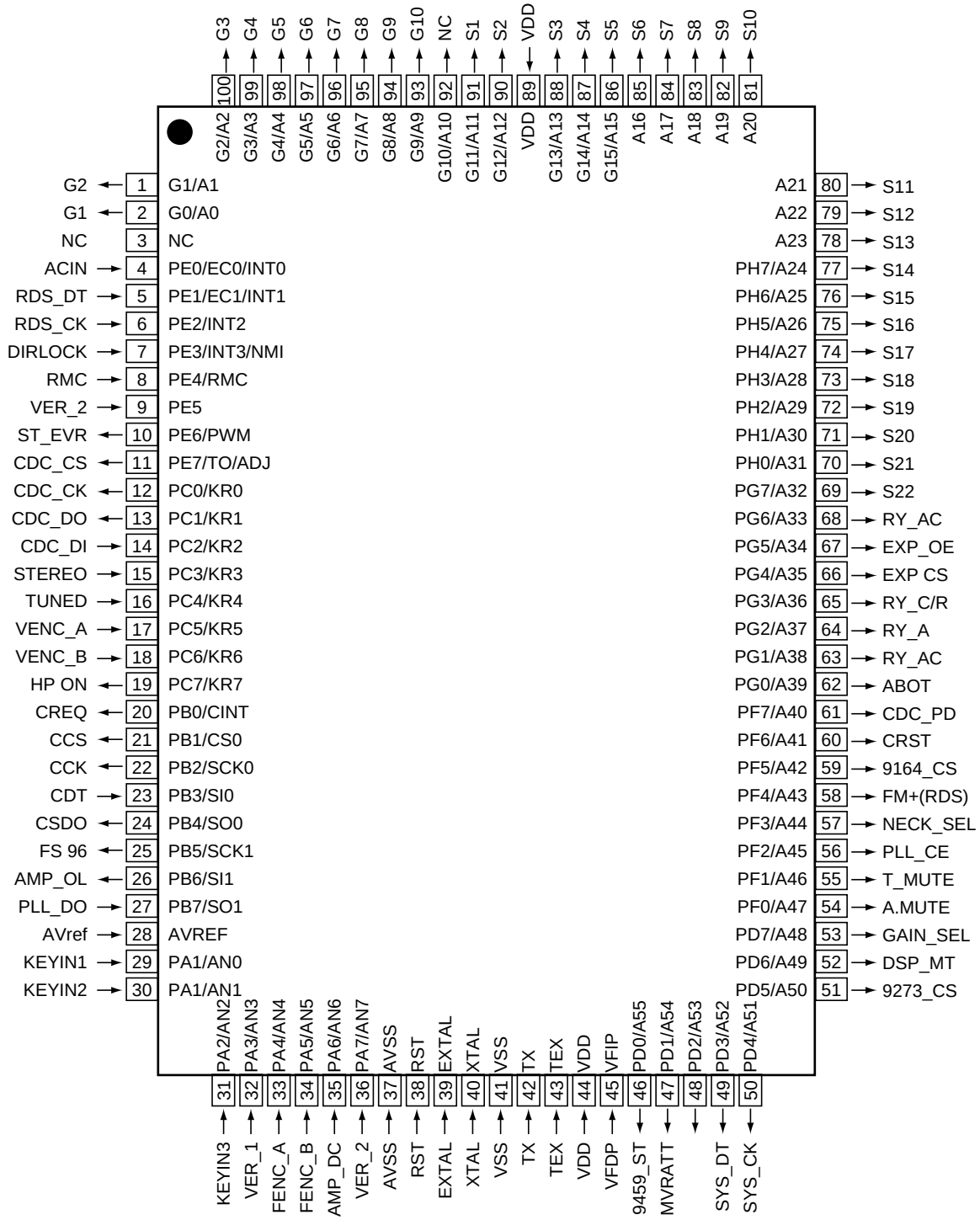
• List of IC

PDG268A, AK4586VQ, BD3812F, NJU7312AM, PD8097A, AK4382

■ PDG268A (FRONT ASSY : IC401)

• System Control MCU

■ Pin Arrangement (Top View)



• **Pin Function**

No.	Pin Name	I/O	Pin Function	Active
1	G2	O	Grid output 2	H
2	G1	O	Grid output 1	H
3	NC	–	Connect to Vdd	
4	ACIN	I	Input AC pulse	
5	RDS_DT	I	Serial control DATA signal of RDS communication	
6	RDS_CK	I	Serial control CLOCK signal of RDS communication (Use external interrupt)	
7	DIRLOCK	I	ERR/OVER input from CODEC	
8	RMC	I	Remote control signal input (no-carrier signal)	
9	VER_2	I	Destination switch 2	
10	ST_EVR	O	Strobe of communication for E-volume	H
11	CDC_CS	O	Chip serect for CODEC	
12	CDC_CK	O	Control clock for CODEC & TC9164	
13	CDC_DO	O	Control data for CODEC & TC9164	
14	CDC DI	I	Data input from DIR	
15	STEREO	I	Signal to switch Stereo / Monoral	
16	TUNED	I	Condition of TUNED	
17	VENC_A	I	Input from rotary encoder of E-volume (A)	
18	VENC_B	I	Input from rotary encoder of E-volume (B)	
19	HP ON	I	Headphone detect	L
20	CREQ	I	Request for DSP	L
21	CCS	O	Chip select for DSP	L
22	CCK	O	Clock signal for DSP	H
23	CDT	I	DATA input signal for DSP	
24	CSDO	O	DATA output signal for DSP	H
25	FS 96	I	96 k	H
26	AMP_OL	I	Detect overload of protection circuit (L: overload)	H
27	PLL_DO	I	Data input signal for communication with LC72131 (Tuner)	
28	AVref	–	Connect to Vdd	
29	KEYIN1	I	Key input A/D conversion port 1	
30	KEYIN2	I	Key input A/D conversion port 2	
31	KEYIN3	I	Key input A/D conversion port 3	
32	VER_1	I	Input 1 to switch region (A/D input)	
33	FENC_A	I	FUNC Rotary encoder signal input (A)	
34	FENC_B	I	FUNC Rotary encoder signal input (B)	
35	AMP_DC	I	Detect trouble DC of protection circuit (L : Trouble)	L
36	VER_2	I	Input 2 to switch region (A/D input)	L
37	AVSS	–	Connect to Vss	
38	RST	–	Reset	
39	EXTAL	–	Connect to the oscillator (7.2MHz)	
40	XTAL	–		
41	VSS	–	Connect to Vss	
42	TX	–	NC	
43	TEX	–	Connect to Vss	
44	VDD	–	+5V	
45	VFDP	–	-30V	
46	9459_ST	O	Strobe for E-volume (TC9459) of SB	
47	MVRATT	O	ATT control of master volume for E-volume (less than -15dB : L)	H
48				H
49	SYS_DT	O	Data signal for communication with M62446, TC9163, TC9164 and PLL	H
50	SYS_CK	O	Clock signal for communication with M62446, TC9163, TC9164 and PLL	H

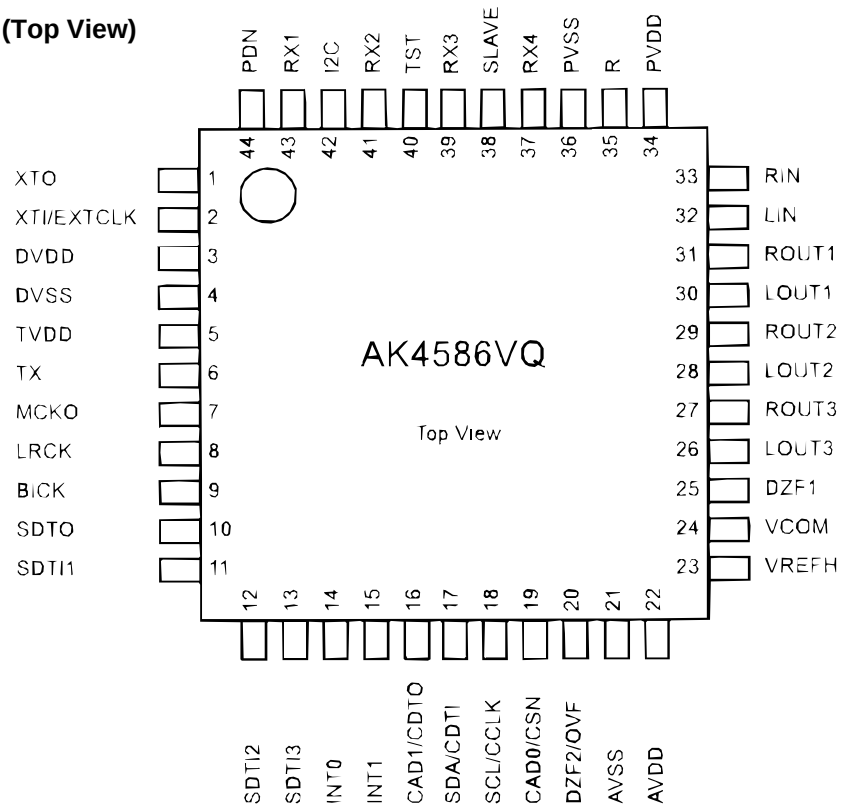
• **Pin Function**

No.	Pin Name	I/O	Pin Function	Active
51	9273_CS	O	Chip select for TC9273	H
52	DSP_MT	O	DSP Mute (ASSY mute)	H
53	GAIN_SEL	O	Gain select (5.1ch and Stereo of analog input : H)	H
54	AMUTE	O	Audio mute	H
55	T_MUTE	O	Tuner mute	H
56	PLL_CE	O	Chip select for communication to LC72131 (Tuner)	
57	NECK_SEL	O	5.1ch, surround mode and A+B Stereo : H / Stereo : L	H
58	FM+(RDS)	O	Tr switch ON/OFF for power supply of RDS decoder (L : AM, power OFF , H : Other)	H
59	9164_ CS	O	TC9163, TC9164 Chip select	
60	CRST	O	Reset for DSP	
61	CDC_PD	O	Power down for CODEC	
62	ABOT	O	Abort for DSP	H
63	RY_AC	O	AC relay ON/OFF	H
64	RY_A	O	Speaker A relay ON/OFF	H
65	RY_C/R	O	Rear/Center Speaker relay ON/OFF	H
66	EXP CS	O	Chip select for expand IC	H
67	EXP OE	O	Chip select for expand IC	H
68	RY_AC	O	AC relay ON/OFF control	H
69	S22	O	Segment output 22	H
70	S21		Segment output 21	
71	S20		Segment output 20	
72	S19		Segment output 19	
73	S18		Segment output 18	
74	S17		Segment output 17	
75	S16		Segment output 16	
76	S15		Segment output 15	
77	S14		Segment output 14	
78	S13		Segment output 13	
79	S12		Segment output 12	
80	S11		Segment output 11	
81	S10		Segment output 10	
82	S9		Segment output 9	
83	S8		Segment output 8	
84	S7		Segment output 7	
85	S6		Segment output 6	
86	S5		Segment output 5	
87	S4		Segment output 4	
88	S3		Segment output 3	
89	VDD	–	5V	
90	S2	O	Segment output 2	H
91	S1		Segment output 1	
92	Not used	O	Not used (Fixed Vfdp)	
93	G10	O	Grid output 10	H
94	G9		Grid output 9	
95	G8		Grid output 8	
96	G7		Grid output 7	
97	G6		Grid output 6	
98	G5		Grid output 5	
99	G4		Grid output 4	
100	G3		Grid output 3	

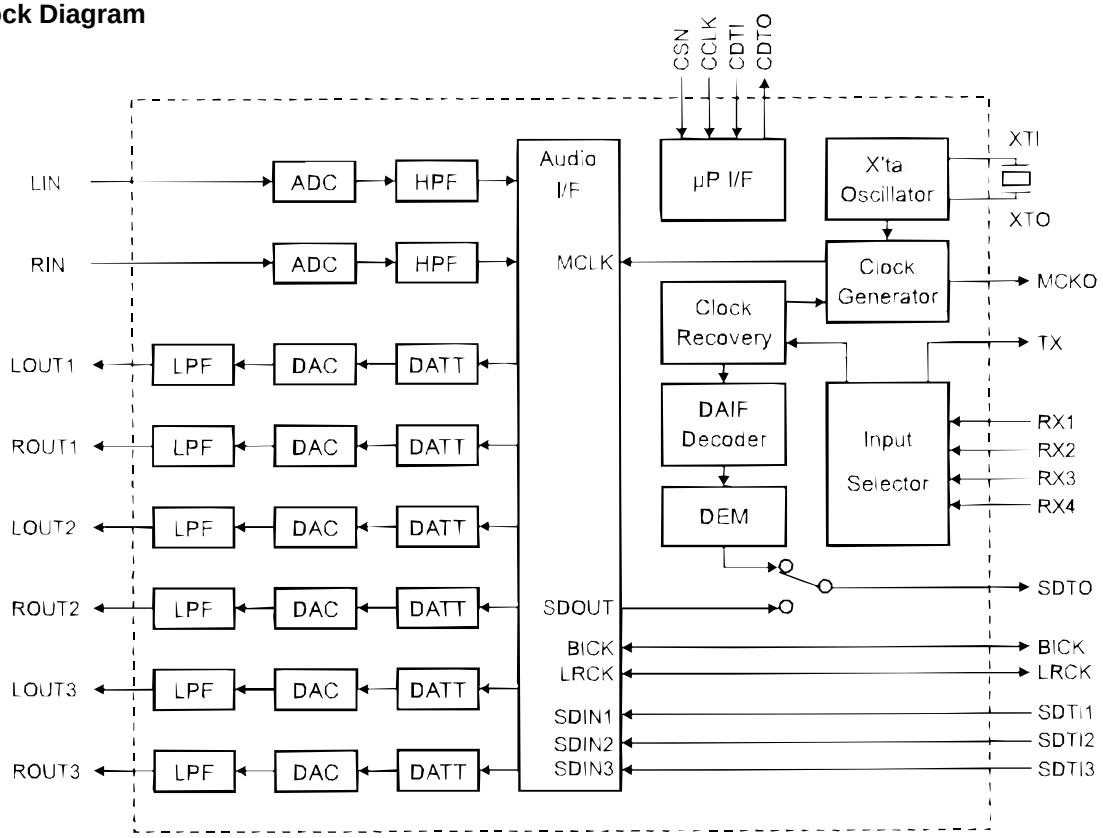
■ AK4586VQ (DD&INPUT ASSY : IC9101)

• 96kHz 24Bit 6-channel CODEC with DIR

■ Pin Arrangement (Top View)



■ Block Diagram



■ Pin / Function

PIN/FUNCTION

No.	Pin Name	I/O	Function
1	XTO	O	X'tal Output Pin
2	XTI	I	X'tal Input Pin
	EXTCLK	I	External Master Clock Input Pin
3	TVDD	-	Output Buffer Power Supply Pin, 2.7V~5.5V
4	DVSS	-	Digital Ground Pin, 0V
5	DVDD	-	Digital Power Supply Pin, 4.5V~5.5V
6	TX	O	Transmit channel (through data) Output Pin
7	MCKO	O	Master Clock Output Pin
8	LRCK	I/O	Input/Output Channel Clock Pin
9	BICK	I/O	Audio Serial Data Clock Pin
10	SDTO	O	Audio Serial Data Output Pin
11	SDTI1	I	DAC1 Audio Serial Data Input Pin
12	SDTI2	I	DAC2 Audio Serial Data Input Pin
13	SDTI3	I	DAC3 Audio Serial Data Input Pin
14	INT0	O	Interrupt 0 pin
15	INT1	O	Interrupt 1 pin
16	CDTO	O	Control Data Output Pin in 4-wire serial control mode
	CAD1	I	Chip Address 1 Pin in I^2C bus control mode
17	CDTI	I	Control Data Input Pin in 4-wire serial control mode
	SDA	I/O	Control Data Input/Output Pin in I^2C bus control mode
18	CCLK	I	Control Data Clock Pin in 4-wire serial control mode
	SCL	I	Control Data Clock Pin in I^2C bus control mode
19	CSN	I	Chip Select Pin in 4-wire serial control mode
	CAD0	I	Chip Address 0 Pin in I^2C bus control mode
20	DZF2	O	Zero Input Detect 2 Pin (Note 1) When the input data of the group 1 follow total 8192 LRCK cycles with "0" input data, this pin goes to "H".
	OVF	O	Analog Input Overflow Detect Pin (Note 2) This pin goes to "H" if the analog input of Lch or Rch is overflows.
21	AVSS	-	Analog Ground Pin, 0V
22	AVDD	-	Analog Power Supply Pin, 4.5V~5.5V

■ Pin / Function

No.	Pin Name	I/O	Function
23	VREFH	I	Positive Voltage Reference Input Pin, AVDD
24	VCOM	O	Common Voltage Output Pin, AVDD/2 Large external capacitor around 2.2μF is used to reduce power-supply noise.
25	DZF1	O	Zero Input Detect 1 Pin (Note 1) When the input data of the group 1 follow total 8192 LRCK cycles with "0" input data, this pin goes to "H".
26	LOUT3	O	DAC3 Lch Analog Output Pin
27	ROUT3	O	DAC3 Rch Analog Output Pin
28	LOUT2	O	DAC2 Lch Analog Output Pin
29	ROUT2	O	DAC2 Rch Analog Output Pin
30	LOUT1	O	DAC1 Lch Analog Output Pin
31	ROUT1	O	DAC1 Rch Analog Output Pin
32	LIN	I	Lch Analog Input Pin
33	RIN	I	Rch Analog Input Pin
34	PVDD	-	PLL Power Supply Pin, 4.5V~5.5V
35	R	-	External Resistor Pin 18kΩ +/-1% resistor to PVSS externally.
36	PVSS	-	PLL Ground Pin, 0V
37	RX4	I	Receiver Channel 4 Pin (Internal biased pin)
38	SLAVE	I	Slave Mode Pin "L": Master mode or Slave mode, "H": Slave mode
39	RX3	I	Receiver Channel 3 Pin (Internal biased pin)
40	TST	I	Test Pin This pin should be connected to DVSS.
41	RX2	I	Receiver Channel 2 Pin (Internal biased pin)
42	I2C	I	Control Mode Select Pin "L": 4-wire Serial, "H": I^2C Bus
43	RX1	I	Receiver Channel 1 Pin (Internal biased pin)
44	PDN	I	Power-Down & Reset Pin When "L", the AK4586 is powered-down, all output pins go to "L" and the control registers are reset to default state. If the state of CAD1-0 changes, then the AK4586 must be reset by PDN.

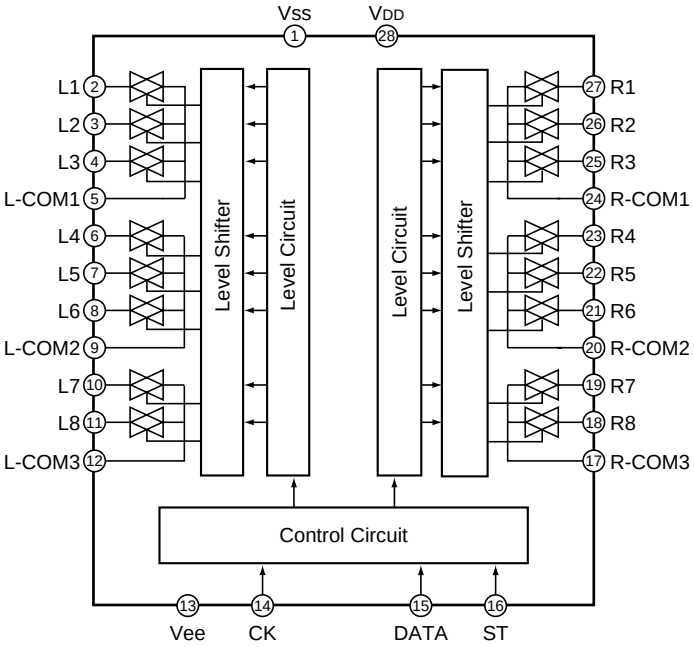
Notes:

1. The group 1 and 2 can be selected by DZFM2-0 bits.
2. This pin becomes OVF pin if OVFE bit is set to "1".
3. All input pins except internal biased pins should not be left floating.

■ NJU7312AM (D.D & INPUT ASSY : IC102)

• Analog Switch Array

● Block Diagram



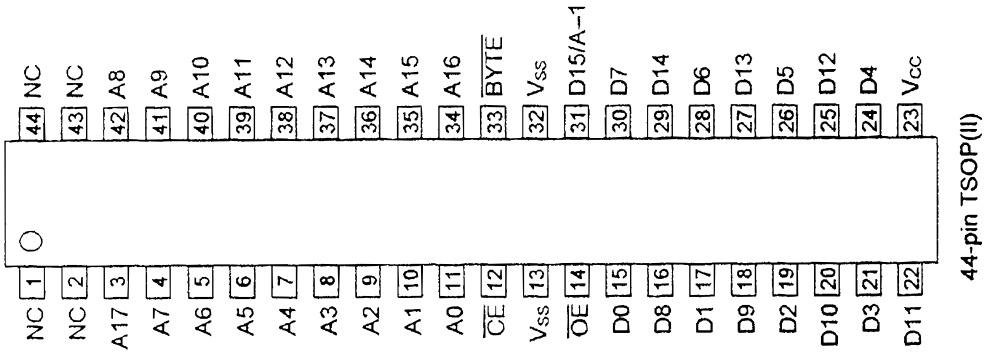
● Pin Function

No.	Pin Name	Function
1	VSS	Minus Power Supply
2, 27	L1,R1	Input and Output
3, 26	L2,R2	
4, 25	L3,R3	
5, 24	COM1	
6, 23	L4,R4	
7, 22	L5,R5	
8, 21	L6,R6	
9, 20	COM2	
10, 19	L7,R7	
21, 18	L8,R8	
26, 17	COM3	
13	GND	Digital Ground
14	CK	Clock Input
15	DATA	Data Input
16	ST	Strobe Input
28	VDD	Plus Power Supply

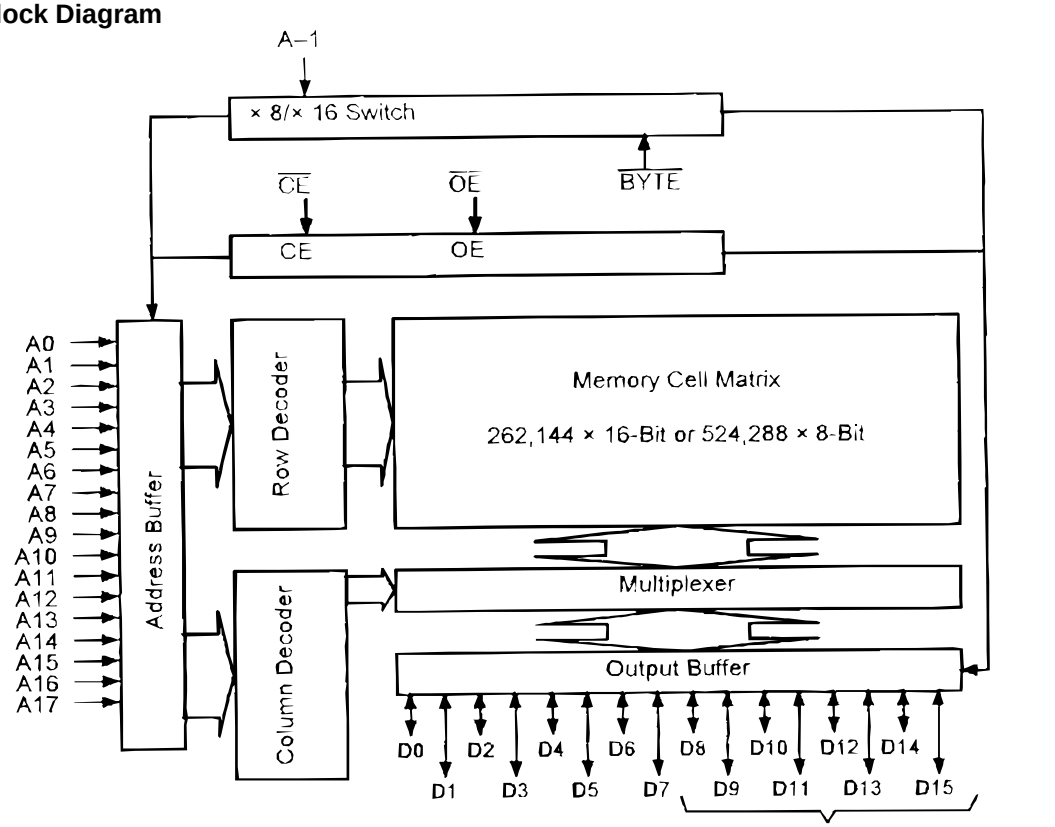
■ PD8097A (D.D & INPUT ASSY : IC9504)

• 4Mb P2ROM

■ Pin Arrangement (Top View)



■ Block Diagram

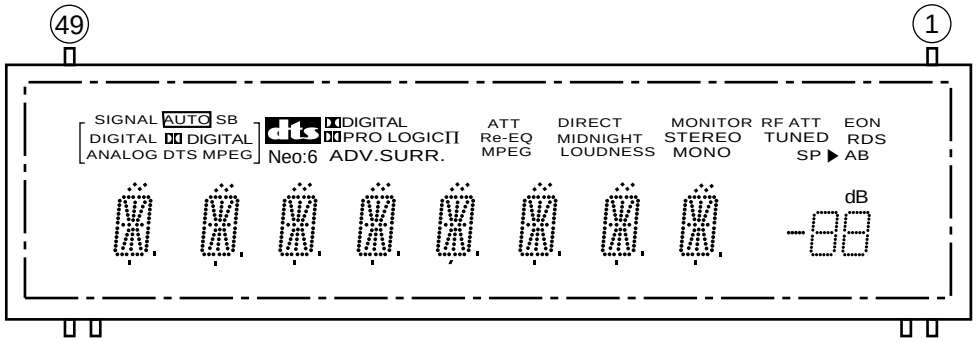


7.2.2 DISPLAY

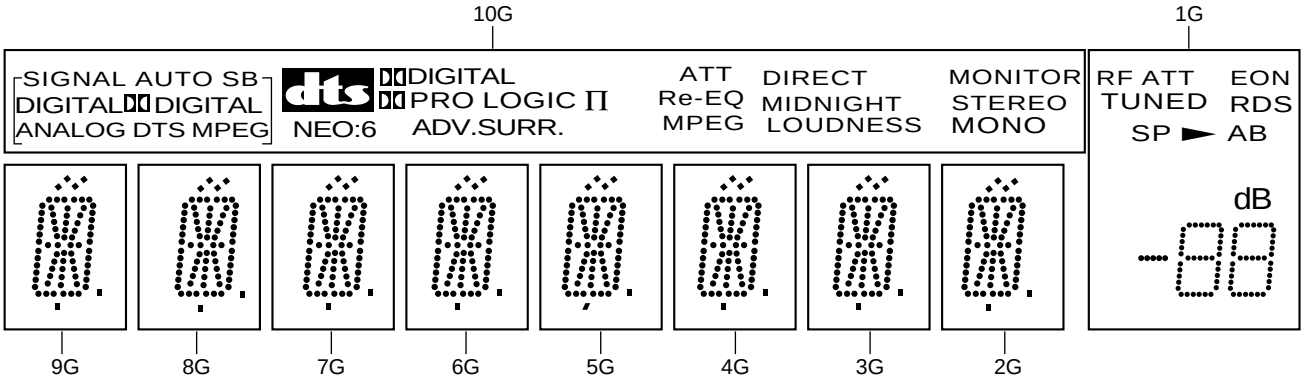
■ XAV3013 (FRONT ASSY : V401)

• FL DISPLAY

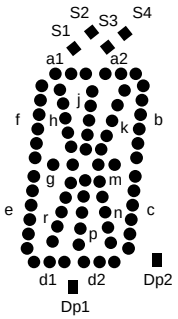
• Pin Assignment



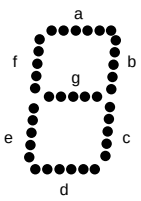
• Grid Assignment



• Segment Designation



(9G to 2G)



(1G)

• Pin Connection

Pin No.	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25
Connection	F2	F2	NP	NP	P22	P21	P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2
Pin No.	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
Connection	P1	NX	NX	NX	NX	NX	NX	NX	NX	NX	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	NP	F1	F1	

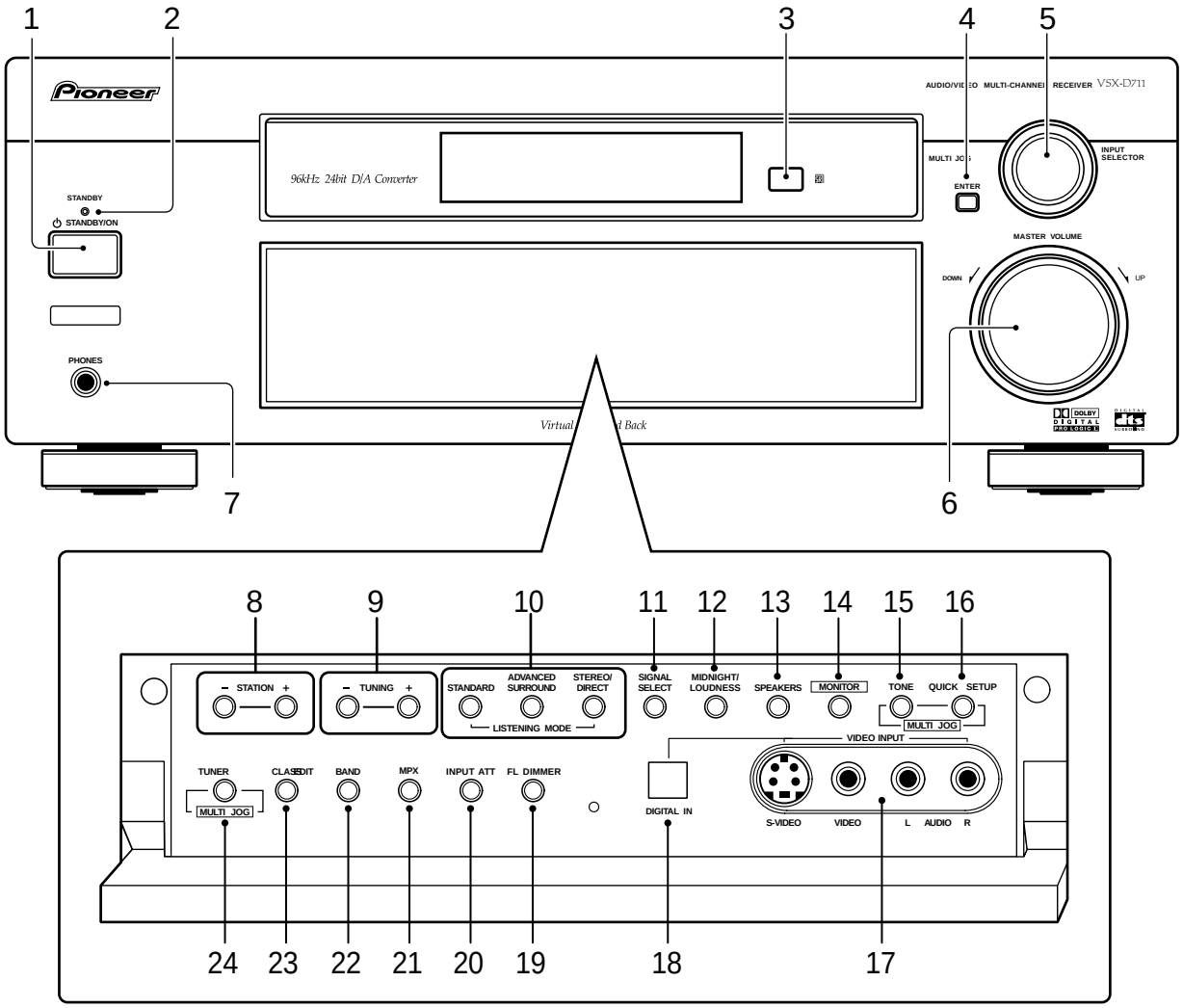
NOTE 1) F1, F2..... Filament
2) NP..... No pin
3) NX..... No extend pin
4) DL..... Datum Line
5) 1G to 10G..... Grid
6) Field of vision is a minimum of 21.8° from the lower side.

• Anode Connection

	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	S1	a1	a1	a1	a1	a1	a1	a1	a1	RFATT
P2	AUTO	a2	a2	a2	a2	a2	a2	a2	a2	EON
P3	SB	h	h	h	h	h	h	h	h	○
P4	DIGITAL	j	j	j	j	j	j	j	j	TUNED
P5	ANALOG	k	k	k	k	k	k	k	k	RDS
P6	DIGITAL (L)	b	b	b	b	b	b	b	b	S1
P7	DTS	f	f	f	f	f	f	f	f	A
P8	MPEG	m	m	m	m	m	m	m	m	B
P9	dts	g	g	g	g	g	g	g	g	1a
P10	MPEG	c	c	c	c	c	c	c	c	1b
P11	DIGITAL (R)	e	e	e	e	e	e	e	e	1f
P12	PROLOGIC Π	r	r	r	r	r	r	r	r	1g
P13	Neo:6	p	p	p	p	p	p	p	p	1c
P14	ATT	n	n	n	n	n	n	n	n	1e
P15	ADV.SURR.	d1	d1	d1	d1	d1	d1	d1	d1	1d
P16	Re-EQ	d2	d2	d2	d2	d2	d2	d2	d2	2a
P17	DIRECT	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2	Dp2	2b
P18	MIDNIGHT	Dp1	Dp1	Dp1	Dp1	Dp1	Dp1	Dp1	Dp1	2f
P19	LOUDNESS	S1	S1	S1	S1	S1	S1	S1	S1	2g
P20	MONITOR	S4	S4	S4	S4	S4	S4	S4	S4	2c
P21	STEREO	S2	S2	S2	S2	S2	S2	S2	S2	2e
P22	MONO	S3	S3	S3	S3	S3	S3	S3	S3	2d

8. PANEL FACILITIES

Front panel



1 ⏻ STANDBY/ON
Switches the receiver between on and standby.

2 STANDBY indicator
Lights when the receiver is in standby mode.

3 Remote sensor
Receives the signals from the remote control.

4 ENTER

5 MULTI JOG/INPUT SELECTOR dial
The MULTI JOG/INPUT SELECTOR dial performs a number of tasks. Use it to select options after pressing TONE CONTROL, QUICK SETUP or TUNER EDIT.

6 MASTER VOLUME

7 PHONES jack
Use to connect headphones. When the headphones are connected, there is no sound output from the speakers.

8 STATION (+/–) buttons
Selects station presets when using the tuner.

9 TUNING buttons
Selects the frequency when using the tuner.

10 LISTENING MODE buttons

STANDARD
Press for Standard decoding and to switch between the various Pro Logic II options.

ADVANCED SURROUND
Use to switch between the various surround modes.

STEREO/DIRECT
Switches direct playback on or off. Direct playback bypasses the tone controls and channel levels for the most accurate reproduction of a source.

11 SIGNAL SELECT
Use to select an input signal.

12 MIDNIGHT/LOUDNESS
Use Midnight when listening to movie soundtracks at low volume.
Use Loudness to boost the bass and treble at low volume.

13 SPEAKERS
Use to cycle through the speaker system: A → B → A+B

14 MONITOR
Press to switch tape monitoring on/off.

15 TONE
Press this button to access the bass and treble controls, which you can then adjust with the MULTI JOG/INPUT SELECTOR dial.

16 QUICK SETUP

17 VIDEO INPUT

18 DIGITAL IN (VSX-D811S only)

19 FL DIMMER
Use this button to make the fluorescent display (FL) dimmer or brighter.

20 INPUT ATT
Use to attenuate (lower) the level of an analog input signal to prevent distortion.

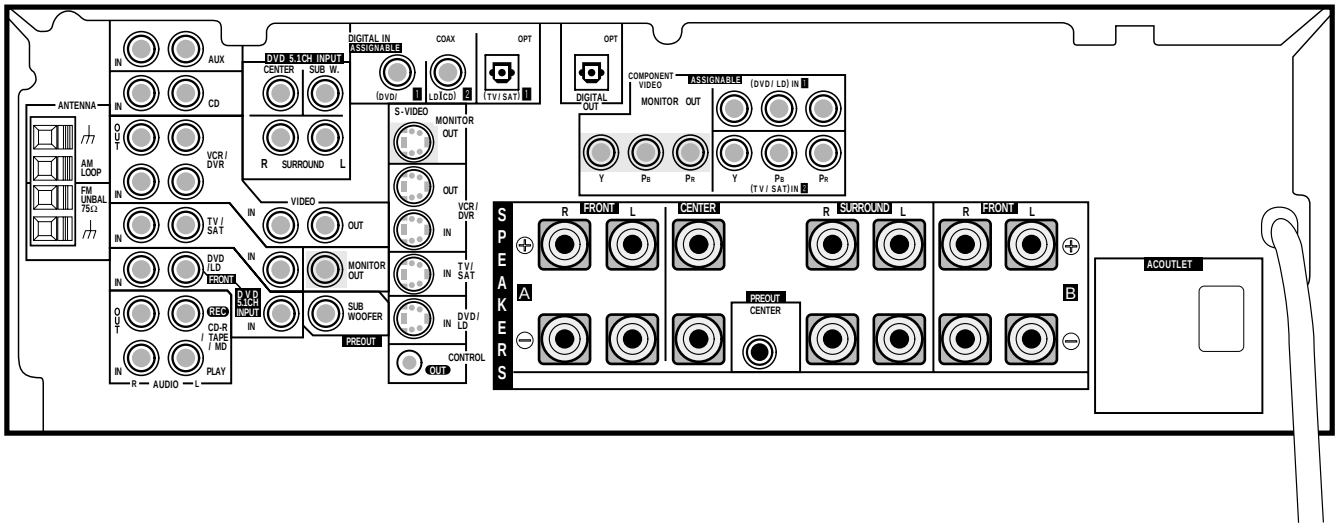
21 MPX
Press to receive a radio broadcast in mono.

22 BAND
Switches between AM and FM radio bands.

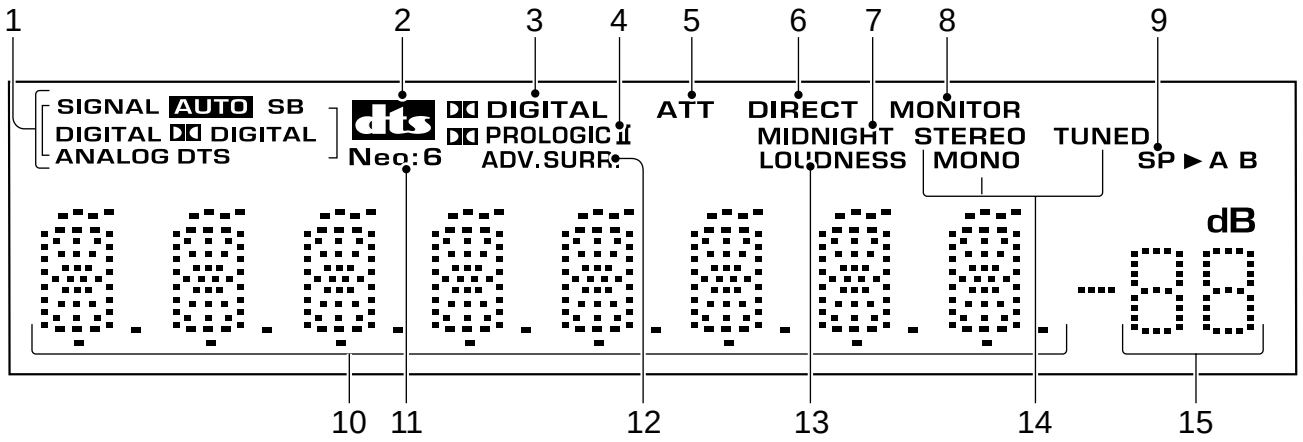
23 CLASS
Switches between the three banks (classes) of station presets.

24 TUNER EDIT
Press to memorize and name a station for recall using the STATION +/– buttons.

Rear Panel



Display



1 SIGNAL SELECT indicators
Lights to indicate the type of input signal assigned for the current component:

AUTO
Lights when AUTO signal select is on

SB (for VSX-D811S)
Depending on the source, this lights when a signal with surround back channel encoding is detected.

DIGITAL
Lights when a digital audio signal is detected.

DIGITAL
Lights when a Dolby Digital encoded signal is detected.

ANALOG
Lights when an analog signal is detected.

DTS
Lights when a source with DTS encoded audio signals is detected.

2 DTS
When the Standard mode of the receiver is on, this lights to indicate decoding of a DTS signal.

3 DIGITAL
When the Standard mode of the receiver is on, this lights to indicate decoding of a Dolby Digital signal.

4 PRO LOGIC II
When the Standard mode of the receiver is on, this lights to indicate Pro Logic II decoding.

5 ATT
Lights when INPUT ATT is used to attenuate (reduce) the level of the analog input signal.

6 DIRECT
Lights when source direct playback is in use. This function bypasses all tone, balance, Advanced surround, and Dolby Surround effects.

7 MIDNIGHT
Lights during Midnight listening.

8 MONITOR
Lights when MONITOR is selected

9 Speaker indicator
Shows the speaker system currently in use.

10 Character display

11 Neo:6 (for VSX-D811S)
Lights during NEO:6 processing

12 ADV. SURR (Advanced Surround)
Lights when one of the Advanced Surround modes has been selected.

13 LOUDNESS
Lights when LOUDNESS has been selected.

14 TUNER indicators

STEREO:
Lights when a stereo FM broadcast is being received in auto stereo mode.

MONO:
Lights when the mono mode is set using the

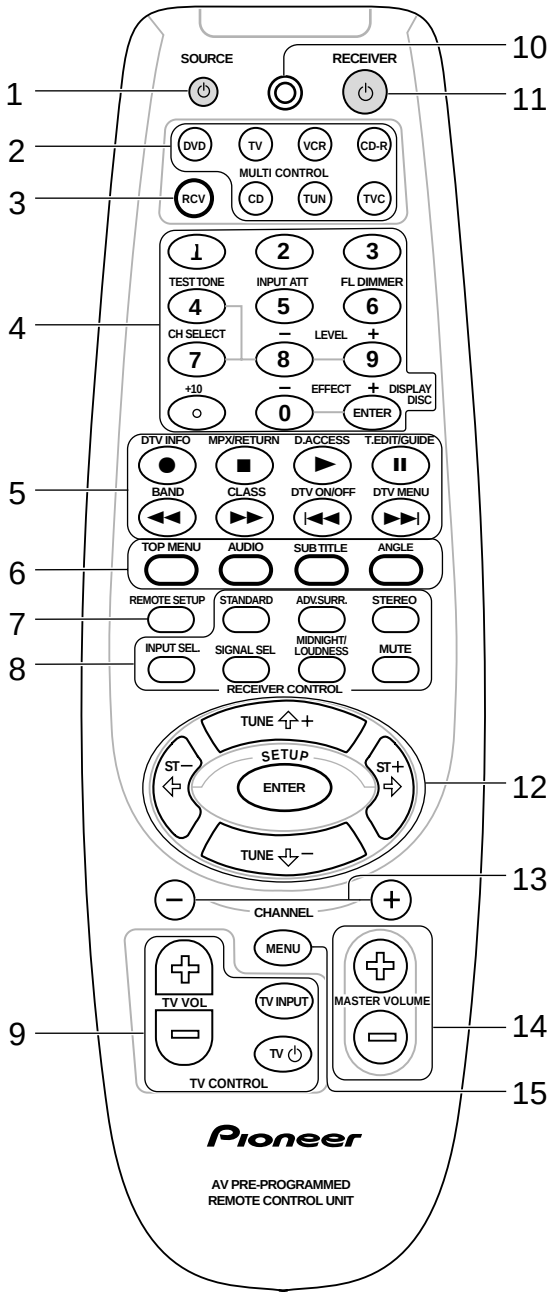
MPX button.

TUNED:
Lights when a broadcast is being received.

15 Master volume level
Shows the overall volume level. ---dB indicates the minimum level, and –0 dB indicates the maximum level.

Depending on your level settings for each channel, the maximum level can range between –10 dB and –0 dB.

Remote control



1 ⏻ SOURCE
Press to turn on/off other components connected to the receiver.

2 MULTI CONTROL buttons
Press to select control of other components (see Controlling the Rest of Your System).

3 RCV
Switches the remote to controls the receiver (used to select the features above the number buttons. (ex. INPUT ATT, FL. DIMMER). Also use this button to set up surround sound.

4 Number buttons/Receiver controls/ENTER
Use the number buttons to directly select a radio frequency or the tracks on a CD, DVD, etc.

DISPLAY/DISC (ENTER)
The button's use depends on the component selected. It can be used to switch the display between the station preset name and the frequency for the tuner, enter commands for TV or DTV, and can also be used to select a disc in a multi-CD player.

Receiver Controls
Press the RCV button first to access the functions above the number buttons. The display flashes when it isn't possible to use a function.

TEST TONE
Sounds the test tone when setting up the surround sound of the receiver.

INPUT ATT
Attenuates (lowers) the level of an analog input signal to prevent distortion (when the overload indicator lights).

FL DIMMER
Dims or brightens the display.

CH SELECT
Selects a speaker when setting up the surround sound of the receiver.

LEVEL +/–
Adjusts the levels of the surround sound of the receiver.

EFFECT +/– buttons
Adds or subtracts the amount of effect with different advanced listening modes (except 5 or 6 Ch Stereo and Virtual SB).

5 Component/Tuner controls
The main buttons (►, ■, etc.) are used to control a component after you have selected it using the MULTI CONTROL buttons. The tuner/DTV controls above these buttons can be accessed after you have selected the corresponding MULTI CONTROL button (TUNER or DVD (when connected to DTV)).

DTV INFO
Use to bring up information screens on a digital TV.

MPX/RETURN
Switches between stereo and mono reception of FM broadcasts. If the signal is weak then switching to mono will improve the sound quality. Also acts as a stop button for CDs, tapes, or DVDs.

D. ACCESS
After pressing, you can access a radio station directly using the number buttons.

T. EDIT/GUIDE
Press to memorize and name a station for recall using the STATION +/– buttons. Also displays the guides on a digital TV.

BAND
Switches between the tuner AM and FM bands.

CLASS
Switches between the three banks (classes) of radio station presets.

DTV ON/OFF
Switches a digital TV on/off.

DTV MENU
Displays menus on a digital TV.

6 DVD controls (Press DVD first to access)
These controls will also function as DTV controls, depending on the component you've selected.

TOP MENU
Displays the disc 'top' menu of a DVD.

AUDIO
Changes the audio language or channel.

SUBTITLE
Displays/changes the subtitles included in multilingual DVD-Video discs.

ANGLE
Switches camera angles on discs with multi-angle scenes.

7 REMOTE SETUP
Press this button to set up the remote control to control other components.

8 RECEIVER CONTROL buttons

STANDARD
Press to switch between the various Dolby/DTS modes

ADV. SURR.
Use to switch between the various surround modes.

STEREO
Switches direct playback on or off. Direct playback bypasses the tone controls and channel levels for the most accurate reproduction of a source.

INPUT SELECT
Use to select the input source.

SIGNAL SELECT
Use to select between an input signal.

MIDNIGHT/LOUDNESS
Switches to Midnight or Loudness listening.

MUTE
Mutes the sound (or restores the sound if it has been muted).

9 TV control buttons
These buttons are dedicated to control the TV assigned to the TVC button. Thus if you only have one TV to hook up to this system assign it to the TVC MULTI CONTROL button. If you have two TVs, assign the main TV to the TVC button.

TV VOLUME +/–
Use to adjust the volume on your TV.

TV INPUT
Use select the TV function.

TV ⏻
Use to turn on/off the power of the TV.

10 LED DISPLAY
This display flashes when a command is sent from the remote control.

11 RECEIVER ⏻
This switches between standby and on for this receiver.

12 ⇦⇨⇩⇧ (TUNE/ST +/–) /ENTER
Use the arrow buttons when setting up your surround sound system (see pages 38–43). Also used to control DVD menus/options and for deck 1 of a double cassette deck player. Use the TUNE +/– buttons to find radio frequencies and use ST +/– to find preset stations.

13 CHANNEL +/–
Select radio station presets. Also skip tracks backward or forward on CDs, DVDs, etc.

14 MASTER VOLUME +/–
Use to set the listening volume.

15 MENU button
Displays the disc menu of DVD-Video discs. It also displays TV and DTV menus.